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PAPER

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Paper Production Greater in First Six Months

Production of All Grades of Paper Totals 3,507,196 Tons for First Half of 1928 as Compared With 3,403,724 Tons for Corresponding Period in 1927—Total Production of Pulp, However, for the First Six Months of 1928 Is Only 1,290,185 Tons as Compared With 1,327,038 Tons for the Same Period in 1927

Reports to the American Paper and Pulp Association from members and cooperating organizations put the total production of all grades of paper at 3,507,196 tons for the first half of 1928. Production for the first half of 1927 was 3,403,724 tons.

Total Paper Production for June

The total production of paper for the month of June was 581,701 tons as compared with 617,835 tons in May and 580,374 tons in April. The daily average production for June was about 2 per cent under that of May and about 1 per cent greater than the daily average of June, 1927.

Stocks of Paper on Hand

Stocks of paper on hand at the end of June totaled 397,550 tons as compared with 289,330 tons at the end of May and 263,466 tons at the end of June, 1927. June, 1928, stocks were 3 per cent lower than those of May and about 13 per cent lower than at the end of June, 1927.

Pulp Production for Six Months

The total production of pulp for the first 6 months of 1928 was 1,290,282 tons as compared with 1,327,038 tons for the same period in 1927.

Pulp Production for June

Pulp production in June, 1928, totaled 209,810 tons as compared with 227,185 tons in May and 216,354 tons in April.

The daily average production for June was 4 per cent less than in May but about the same as in June, 1927.

COMPARATIVE REPORT OF PAPER OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF JUNE, 1928

Grade	Production tons	Shipments tons	Stocks on hand end of month tons
News print	119,673	116,901	39,979
Book	90,976	89,642	58,916
Paperboard	220,863	217,214	53,846
Wrapping	51,421	50,752	56,028
Bag	14,135	14,343	8,727
Writing	30,580	31,089	42,524
Tissue	13,447	13,158	13,590
Hanging	4,504	4,646	3,506
Felts and building	11,879	11,830	1,670
Other grades	24,223	24,272	18,764
Total—All grades—June	581,701	573,847	297,550
May	617,835	599,618	289,330
Six months, 1928	3,507,196	3,451,461	297,550
Six months, 1927	3,403,724	3,367,979	263,466

COMPARATIVE REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF JUNE, 1928

Grade	Production tons	Shipments tons	Stocks on hand end of month tons
Ground wood pulp	87,235	2,904	120,043
Sulphite news grade	37,752	1,896	11,215
Sulphite bleached	24,689	2,297	2,791
Sulphite easy bleaching	3,409	317	378
Sulphite Mitscherlich	7,079	1,148	1,432
Sulphate pulp	24,762	6,680	6,400
Soda pulp	24,806	8,467	4,420
Pulp—Other grades	78	48	123
Total—All grades—June	209,810	24,757	146,802
May	227,185	20,681	145,809
Six months, 1928	1,290,282	134,756	146,802
Six months, 1927	1,327,038	122,133	189,277

I. P. Improvements at Fort Edward

FORT EDWARD, N. Y., August 14, 1928.—The Fort Edward mill of the International Paper Company which has been increasing operations for several months past is now runinng on a more extensive scale than has been the case for two or three years. The conversion of the mill from news print to bond papers has been entirely effected with the recent completion of some minor changes. The major portion of the work was completed last spring when the Domil Construction Company finished its contract. This firm was later authorized to construct an additional warehouse for storing waste paper and a small force of workers has been engaged on this building.

The Fort Edward mill is receiving large shipments of waste paper, these arriving by both rail and water. An unusual shipment which came to the plant recently was a carload of sheet music, the product of leading New York song writers.

The changes being made at the Corinth and South Glens Falls mills of the I. P. Co. are also progressing satisfactorily. At the Corinth mill where five of the ten machines are being rebuilt to manufacture a product other than newsprint, the work is going forward rapidly. It is understood that the remaining five machines in the Hudson River Mill will also be taken from newsprint, and after necessary changes are made, started on the production of bond or some otner paper product.

Hammermill Conference to be Held Aug. 22-24

The Hammermill Paper Company, of Erie, Pa., will hold its Seventeenth Annual Conference of Hammermill Agents in Erie, Pa., August 22 to 24. An instructive and entertaining program will, as usual, be carried out.

Demand for Paper Listless in Philadelphia

Torrid Weather and Absence of Many Paper Executives From City on Vacation, Affects Local Trading Adversely—Distributors Annual Clearance Sales Practically Completed—Quotations on Various Grades Rule Generally Steady to Firm

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., August 13, 1928.—The soaring thermometer left its impression on the lowered temperature of the paper market throughout the past week. As the heat made it intolerable for residents of the city to remain within its environs there was very little business transacted in the paper market, as heads of firms journeyed to seashore, mountain or country to be relieved from the torrid days of mid summer. Consequently the market lingered along in a dull and listless trading spell that indicated the usual summer doldroms effective with the hot weather.

As paper dealers clear away from shelves and warehouses hold over wares that have been marked down with inventory completion, distributors are preparing to enter the buyers market in so far as the mills are concerned. Many distributors have been well cleaned out of marked down wares that were brought into competition with newer goods offered at lower prices when manufacturers were campaigning for summer orders earlier in the season. Despite concessions made by distributors for these clearances they were not able to meet recessions of the mills in some grades that were lowered in the competitive bidding for business in order to maintain operations throughout the dull days of summer. This was particularly true of the kraft situation, where prices for a brief month were subjected to lowest levels since war days and below offerings in antebellum years.

Although distributors are nearing completion of clearance sales, prices have been steadier. While a few offerings have been made in slow selling wares these grades are well cleaned up and newer papers are quoted at steadier and higher levels by the mills. Many grades of paper that were subjected to recessions have been raised within recent days, including krafts, tissues, bags and roofings and similar lines.

Distributors who cater to the summer time requirements of soda and ice crean dispensers, and feature sanitary products like towels, cups and similar paper goods, report an unusually active market since the intense hot weather made it imperative for the broader use of these commodities. There has been a new altitude attained in the sale of drinking cups by some of the larger distributors. Outing wares in paper supplies, too, have been heavily consumed. Not only are tourists buyers of ths goods but those who stay at home are consuming numerous paper plates, food containers and paper drinking devices which save overhead and labor in housekeeping and promote sanitation.

Greaseproof papers and glassines for the food trades and confectionery and general manufacturing purposes are now in demand. Fall products in merchandise, holiday packages of many lines, now being produced for the 1928 autumn and winter seasons are now being done up with attractive glassine coverings, creating a broader market for these trade wares.

Hot weather consumption of bags of all descriptions continues to show the growth of demand for these containers. As prices grow steadier the markets expand and larger producers as well as independent local manufacturers of bags are enjoying a well maintained summer production. The growth of curb markets along the automobile highways where farm produce, summer cooling foods such as ice cream, soda water and like refreshments are sold, have opened up new consuming channels for bags and summer time paper goods. Though many orders are small they are numerous and bulk in considerable volume for the dealers going after this new field of enterprise.

Paper stocks are now of interest to the manufacturers, who are showing signs of interest in the many common grades that have been quietly drifting along. While most of the present indications of interest on the part of the mills are inquiries for future deliveries there have been more car load shipments within the week, though not of usual seasonal activity.

Ajax Paper Mills To Be Auctioned

Under the receivership which has been in charge of the financial adjustment of the Ajax Paper Mills, recently involved in bankruptcy proceedings, and located in Buck Run, Pa., the plant, equipment and stocks of tissue papers made by the firm are to be sold at auction. While no definite date of the sale has been announced it is understood that the mills and other assets of the company are to be placed on the block in the current month. A. C. Greenwood, of Coatsville, Pa., who is acting on behalf of the creditors and the receivers will direct the disposition of the Ajax Paper Mills' assets in the final settlement of its affairs. The financial difficulties of the company were brought about by the development of the plant and the expensive electrification equipment which was provided for its operation. The mills were engaged in the production of tissue paper.

D. S. Walton & Co. Offers New Tinted Line

Philadelphia distributors handling the line of tissue papers made by D. S. Walton & Co., with offices in the Bourse Building, have been offered a line of tinted toilet papers, an entirely new product for the company. The toilet papers are of high grade and come in a varied assortment of colors and tints made in 2,000 sheet rolls. The new lines were brought out last week.

Clark H. Morian Returns From Trip

Following an unusually active season with the Cherry River Paper Company, Clark H. Morian, vice president and general manager, was granted a month's leave of absence to enjoy a well earned vacation. He will return to his desk this week after spending the holiday in Nova Scotia and other northern resorts. The Cherry River Paper Company has been engaged in full time operation of its mills in Richwood, Va., during the summer months, owing to the growing demand for its many products and particularly for its envelope and tag papers and bleached and unbleached specialties.

Mohawk Paper Makers Show New Grades

From the mills of the Mohawk Paper Makers, Inc., located at Cohoes, N. Y., there is being sent to the Quaker City distributors a very attractive assortment of high grade colored writing papers, especially good quality of poster and cover papers grouped in the moderate price list of products produced by that company. The new high grade colored writings are known as the Metro and are produced in standardized and modish hues. The poster cover papers are bright and snappy, producing a highly pleasing line for the printing trades and stationers. These papers are newly added this summer and augment the former grades made by the Mohawk mills.

Louis T. Condon To Represent International

Changes announced during the week from the New York offices of the International Paper Company, affect the distribution of wrapping paper in the Philadelphia trade through the local representative. Heretofore the wrapping papers made by the International Company were sold through the Philadelphia offices in the Pennsylvania Building, under Manager Fred C. Rowley. Last week the trade was informed that the wrapping paper sales will be taken over by Louis T. Condon, who has been for many years

local manager for the Continental Paper and Bag Corporation, with offices in the Land Title Building. Mr. Condon will combine the sales representation of the Continental Company's products with the wrapping papers produced by the parent company, the International Paper Company. The Philadelphia offices of the International Paper Company will continue under the management of Fred C. Rowley and the staff of sales representatives heretofore associated with the local sales headquarters. However, sales from the Quaker City offices will be confined to news print and fine papers and supplies consumed by the printing and publishing trades. The changes were effective with the current month.

H. G. Kleinfelter With Grady Travers Co.

H. G. Kleinfelter who is well known to the Quaker City trade as an associate of the twine trade is now representing the Grady-Travers Company, of New York, in this territory. Before connecting with the Metropolitan firm he for many years traveled the city and adjacent states as twine broker associated with his father and represented several mills in this section. The former salesman for the Grady Travers Company, G. Rickert, has severed his connection with the company to enter the oil trade in Texas.

Develops Printed Bag Line

A specialized service in the printed bags made by the Central Paper Bag Manufacturing Company, 1732 North Blair street, provides for speedy production in either small or large orders, without additional cost for the smaller lots. There has been developed the firm's own mechanical units for attachments to the bag and printing equipment, which provides for speedy process of production through patented devices invented under direction of the firm. These patents have been worked out in the eight years that they have been under development by the company and have now been perfected to print 100,000 to 150,000 bags per day on a single machine with but two to three minutes loss of time in changing from one order to another. This provides for one and two color process printing for bags of any size or type. The firm has made this printed service a specialty within recent times and has a factory equipment for handling volume orders with despatch.

Penn Fibreboard Installs Electric Units

Installation of the newest of electrical units to be added to the plant of the Penn Fibreboard Corporation, manufacturers of chip, manila and test boards, at York, Pa., have been completed. The new units made by the General Electric Company consist of two synchronous jordan motors and two feeder motors. There has also been completed the installation of a powdered coal outfit for the boilers.

Keikhefer Container Co. Adds New Turbines

Two of the plants of the Keikhefer Container Company have recently been equipped with new turbines of General Electric Company's make. The large plant maintained by the company at Delair, N. J., has been equipped with a 1,500 kw. turbine, while the plant in Three Rivers, Mich., known as the Eddy Paper Company, has been likewise supplied with a similar turbine unit.

Congoleum Co. Moves Offices To New Jersey

The former Philadelphia offices of the Congoleum Company, located at 1421 Chestnut street, have been removed to the plant headquarters at Kearny, N. J. The Congoleum-Nairn Company, manufacturers of roofings and shingle felts and floor coverings for many years occupied offices in the Morris Building, 1421 Chestnut street. These offices have been discontinued with removal to the Kearney plant.

Shallcross Co. Develops Duplicating Papers

Featuring concentrated business on duplicating papers and supplies the Shallcross Company, Inc., with headquarters at 1450 Grays Ferry Road, is now making its own line of carbon papers, ink duplicating and mimeograph papers under its own brands. The plant at the Grays Ferry Road address has been expanded for the extension of the wholesale business enjoyed by the firm and for the distribution of these grades to the trade and large consumers.

Arthur F. Haise Joins Printing Firm

Arthur F. Haise, who formerly was connected with the Whiting Patterson Company, fine paper and envelopes dealers, 320 North 13th street, is now associated with the printing concern of Inness & Sons, 13th and Cherry streets, on the sales staff.

Norstrand Mfg. Co. Formed

[FROM OUR REGULAR CORRESPONDENT]

PLATTSBURG, N. Y., August 14, 1928.—A new addition to the pulp and paper industry of Northern New York is the Norstrand Manufacturing Company which has just been organized here to manufacture ground wood products. Those interested in the new firm are men who have been associated with pulp and paper manufacturing here for some time past.

H. P. Norstrand heads the company as president and will also act as general manager. Other officers of the firm are L. B. Norstrand, vice president and secretary; J. W. Guibord, treasurer, and M. C. Taylor, assistant treasurer. A. N. Lund has been appointed general superintendent.

The new concern has leased for a term of years the ground wood mill and steam plant of the Saranac Pulp and Paper Company and will add to the present floor space to provide more room for manufacturing. The company will begin at once an extensive building program to make the plant suitable for manufacturing the new product.

The present pulp mill building will be enlarged by the addition of a second story which will provide nearly 18,000 square feet of additional floor space. Another mill building will be erected east of the present pulp mill. This structure will have a steel frame with sidewalls of tile. A new steam power plant which will furnish 500 horsepower is also included in the building program. This building will be entirely modern and its equipment will include automatic stoking and coal handling devices.

The company will produce a special product and will use machines of a special design. These machines have been ordered and are now being built. Delivery is expected by the time the new buildings are completed. The plant will operate 24 hours a day and will employ at the start of operations about 40 workers.

Oswego Falls Corp. Arranges for Pulpwood

CARTHAGE, N. Y., August 14, 1928—John C. Murray, of this village, wholesaler of pulpwood, has contracted with the Oswego Falls Corporation, of Fulton, for handling shipments of pulpwood for the paper company's plant. Shipments will be moved through Oswego and in connection with the plans for shipment of the wood from the lower St. Lawrence River to Fulton Mr. Murray was in Oswego this week conferring with officials of the Longshoremen's Union in regard to handling rates on the pulpwood through the Oswego terminal. The union prepared a scale of rates and these were sent to Mr. Murray who will confer later with officials of the Oswego Falls Corporation. He is also negotiating with canal boat owners in New York and Buffalo for handling pulpwood shipments from the East Side terminal, New York, to Oswego through the Barge Canal to Fulton.

Mr. Murray is one of the largest Northern New York wholesalers of pulp wood handling yearly a large tonnage from Nova Scotia and New Brunswick districts for Northern New York mills. Heretofore most of the Murray shipments have been handled through Ogdensburg and Waddington. A number of years ago Mr. Murray operated extensively through the Port of Oswego furnishing wood for the Battle Island Paper Company.

George H. Kerr, of Oswego, another wholesaler of pulp wood, is handling this season a large tonnage of pulpwood for the Oswego Falls Corporation from the lower St. Lawrence by way of the Atlantic to the Port of New York and thence by barge canal to Fulton.

Fox River Valley Safety Council's Plans

Committee Appointed to Prepare Bylaws—Council Will Be Organized on Permanent Basis—Work to be Intensified Because of Closer Attention to Precautions — Water Purifying Problem May Be Near Solution—George M. Mead Campaigning

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., August 13, 1928.—Appointment of a committee of five at a meeting of fifty industrial representatives on Wednesday of last week was the first step taken in organizing the Fox River Valley Safety Council on a permanent basis. The meeting was held at the Conway hotel, Appleton, Wis.

This committee is to prepare bylaws and present them at a meeting which will be called in about thirty days. Those appointed were H. F. Menzel, of Appleton, secretary of the council, William Falatick, manager of the Appleton mill of the Thilmany Pulp and Paper Company, Thomas W. Suddard of Two Rivers, George P. Nevitt, Oshkosh, and D. H. Green, Menasha. H. L. Vits, of Manitowoc, Wis., is chairman of the council.

P. Strickler, of Chicago, a member of the organization staff of the National Safety Council, was present and spoke on the plans. Each city will have its branch of the council, he said, and commissions will be appointed to look after industrial and traffic safety. Each council will have representatives on the valley council.

It is expected that this plan will intensify the safety work because of the closer attention that is paid to it. The paper mills and other industries have been leaders for some time in the safety accomplishments of their own establishments, and the new organization will give its attention principally to industrial safety but also will include traffic and other factors that have an important bearing on the situation.

G. W. Mead Anticipates Five Day Week

Belief that the five day week with six days pay is coming soon in industry has been expressed by George W. Mead, president of the Consolidated Water Power and Paper Company, in his campaign speeches of the last week. He is seeking the nomination for United States Senator on the Republican ticket in opposition to Senator Robert M. LaFollette.

According to quotations made by the press, Mr. Mead has said: "I believe the time is coming soon when the five day working week with six day pay will be universal in our nation. By introducing more machinery and working shorter time, still more opportunity for leisure and outside education will be given to workingmen. One-sixth more workers will be employed. Overproduction will be curbed, and America will be uplifted."

Mr. Mead's candidacy has been undorsed by the local unions at Wisconsin Rapids, Wis., by the locals of the Paper Makers Local No. 137, Pulp and Sulphite Workers No. 94 and Electrical Workers No. 1147.

Rotary Filter Purifies Water

Solution of the water purifying problem in paper mills probably has been simplified through the invention of a rotary filter by R. A. North, president of the Green Bay Foundry and Machine Works, Green Bay, Wis. He has been granted a patent on the device. The filter removes all impurities from the water by means of compressed sponges. Manufacture already is under way.

Demand for a filter of this kind came about because of the location of some of the Green Bay paper mills on a portion of the Fox River that is so badly polluted it has become almost necessary to shut down until the water was improved. The North invention has been tried out by some of these mills and was found to meet the situation. Orders already have been placed for this equipment.

News of the Industry

Improvements are in contemplation at the Patten Paper Co., Ltd., of Appleton, Wis. This is among the oldest of the mills in the Fox River Valley. The company intends to build a new power house in proximity to the present location, and probably will follow this up with other improvements. Plans towards this end still are indefinite.

Two liberal bequests are revealed by the will of the late D. W. Bergstrom, president of the Bergstrom Paper Company, of Neenah, Wis., who died recently. The total amount of his estate has not been announced publicly. It is known, however, that he has given $50,000 to Theda Clark Memorial Hospital, of Neenah, and $5,000 to Carroll College, Waukesha, Wis. John N. Bergstrom, a son, has been elected a director of the First National Bank of Neenah, to fill the vacancy occasioned by his father's death.

William Frederick, of Fort Wayne Corrugated Company, Hartford City, Ind., has been engaged as superintendent of the corrugated box department of the Menasha Wooden Ware Company, of Menasha, Wis. The company had manufactured wooden containers for many years, but within the last few months made a start in the paper container world.

Robert A. Russel, employed at the Telulah mill of the Fox River Paper Company, of Appleton, Wis., lost his life last week by drowning. He slipped while on the river bank and was unable to swim in twenty-five feet of water, the depth at the point where he fell in.

Boston Paper Trade Happenings

BOSTON, Mass., August 13, 1928.—Harrie E. Waite, salesmanager for John Carter & Co., Inc., is at Morgan, Vt., with his family for a two weeks' vacation, expecting to return Monday, August 20.

Dean Wheatley, general manager of the International Purchasing Company, has sailed for England and the Continent, on a trip combining business and pleasure, expecting to be away a few weeks. He is accompanied by Robert W. Lennox, treasurer and purchasing agent for Hollingsworth & Vose Company.

Gordon E. Emerson, assistant manager of E. Butterworth & Co., Inc., has returned from a two weeks' vacation in Maine.

Edwin Kleberg, salesman for Spaulding & Tewksbury, has gone to Maine for a vacation.

James J. Kelly, who handles paper mill supplies, has become associated with the American Wool Stock Company, of Baltimore and New York, in their New England department.

The Gatti Paper Stock Corporation, New York, has purchased the plant of the John A. DeVito Company at South Boston. The Roxbury plant is to be discontinued. Much of the machinery is to be used at the Gatti plant on Pittsburg street. Albert A. Fredericks is manager of the Gatti Paper Stock Corporation's Boston division.

Bryan McQuillen has retired as treasurer and director of the Storrs & Bement Company. At the annual meeting, August 6, William B. Stevenson, president, was also elected treasurer. W. N. Stetson, Jr., remains vice president and secretary. George L. Webb is assistant treasurer.

Manitoulin Co. Increases Output

MONTREAL, Que., August 13, 1928.—The Manitoulin Pulp Company at Kagawong, Ont., is now producing 40,000 lbs. of dry pulp daily, the capacity of the mill having recently been extended by 20,000 lbs. per day. The plant is owned and operated by the Little Rapids Pulp Company of Little Rapids, Wisconsin. The pulp is shipped to the United States for manufacture into catalogue paper.

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Chicago Paper Market Exhibits Improvements

Conditions in Paper Industry Compare Favorably With Business in Corresponding Period Last Year—News Print Production Being Absorbed Fairly Well—Fine Paper Section Seasonally Inactive—Box Board Division Holds Excellent Position

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., August 13, 1928.—The second set of vacation goers are now infesting the lakes, woods and motor trails, while the Chicago paper trade views its prospects just prior to entering into the fall season. It is with considerable satisfaction that most of the reports are given signifying increasingly better conditions over the same period last year. Markets and prices are steady and merchants seem to be in a better frame of mind with which to cope with the terrific competition, narrow margin of profit and other things that have contributed to the worrying moments of paper men in this section.

Business During the Vacation Period

All the while, as the vacation period is being enjoyed by alternate thousands, business goes on as follows: news print is reported as being rather quiet with production being taken up fairly well. Fine paper is seasonally inactive but what action there is, is better than this time last year. Book and cover papers are reported as moving rather slowly though better than last year. The board market is said to be slackened up in demand a trifle though box board continues to hold its excellent position in this line.

Power Exposition Planned

The Fourth Midwestern Engineering and Power Exposition is to be held February 12 to 16 in the Coliseum, Chicago. Prominent among the features of the exposition will be the zoning and classifying of exhibits in so far as practical. In one section will be the steam generating equipment, including superheaters, boilers, piping and accessories incident to steam generation. Another section will contain fuel oil and gas-burning equipment with all equipment incidental to furnace operation. Another section will display equipment for the handling of water in its various forms, such as pumps, condensers and conditioning equipment. Another zone will consist of manufacturers exhibits covering meters, valves, instruments, bearings and control devices. A division devoted to refrigeration and another given over to heating and ventilation are also planned. Equipment classed under industrial handling, including scales, hoists, transmissions, building equipment and contractors' and engineers' supplies, will also be housed in the big Coliseum. This classification of exhibits will be of benefit to visitors as well as to exhibitors, proving a time-saver and allowing more possibilities for demonstration and discussion. The Midwestern Engineering and Power Exposition always draws a large number of interested visitors from the pulp and paper mills of the country.

News of the Trade

The Bargain Paper House, 423 West Ontario street, has recently issued a July-August price list on Seconds and Perfects. Prices are quoted on blottings, bond, coated book, offset papers, folding enamel, cardboards, coated cover, index bristol, S. & S. C. book, perfect enamel, litho label, M. F. book, manila, writings and post card. The booklet consists of thirty pages.

Of approaching interest among the various Chicago associations is the next golf tournament of the Salesmen's Association of the Paper Industry and the next meeting of the Chicago Paper Association to be followed by an outing at one of Chicago's finest country clubs. The Salesmen's Association will hold their fourth popular golf tournament at Kalamazoo, Michigan, August 16. Whether they have become so boisterous in their merrymaking that Chicago cannot hold them or not, they are to be the guests of the paper crowd at the Michigan city and a good time will probably be had by all.

The Chicago Paper Association will have its next regular meeting on the 14th of this month at the Bismarck Hotel. The program will be a continuation of work on cost statistics and other ramifications of the excellent work outlined by the progressive group. On the following morning, August 15, the association and its guests will sojourn out to the Butterfield Country Club to enjoy an entire day of sports, both indoor and outdoor.

Increasing Fuel Economy

The Superheater Company, 17 East 42nd street, New York, has just issued a new stationary superheater catalog, entitled "The Elesco Superheater for Power Plants".

This book is written in the light of engineering efforts toward increasing fuel economy here and abroad. Every phase of superheat is discussed, also the requirements for proper superheater design and how they are carried out in the Elesco design. Practically every make and type of boiler with an Elesco superheater is illustrated and explained.

It has been endeavored to arrange the matter for the convenience of any one interested in the generation and use of superheated steam. For the busy man—it gives the "high points" on superheated steam. For those who wish to study the subject more thoroughly, it also goes into greater detail.

In the first part are the introductory remarks giving brief statements about the company and its activities in the power plant field. The part played by superheated steam, basic definitions and briefly the advantages gained through the use of superheated steam, are also given. The next section "Application of the Elesco Superheater," gives general descriptions or specifications for the 67 superheater and boiler arrangements illustrated. In the section entitled "Advantages of the Elesco Superheater," are illustrated and discussed at length the various advantages due to the Superheater Company's design. Design details are given in the next section. This is followed by an appendix reprinted in part from the seventh edition of Superheat Engineering Data. It discusses in greater detail the advantages of superheated steam, mentioned in the first part, and gives other data regarding the generation and use of superheated steam.

Convenient guides to the text, and superheater and boiler illustrations are given in the front of the book. An industrial superheater information sheet will be found at the back.

Paper Mill Electrification Contracts Placed

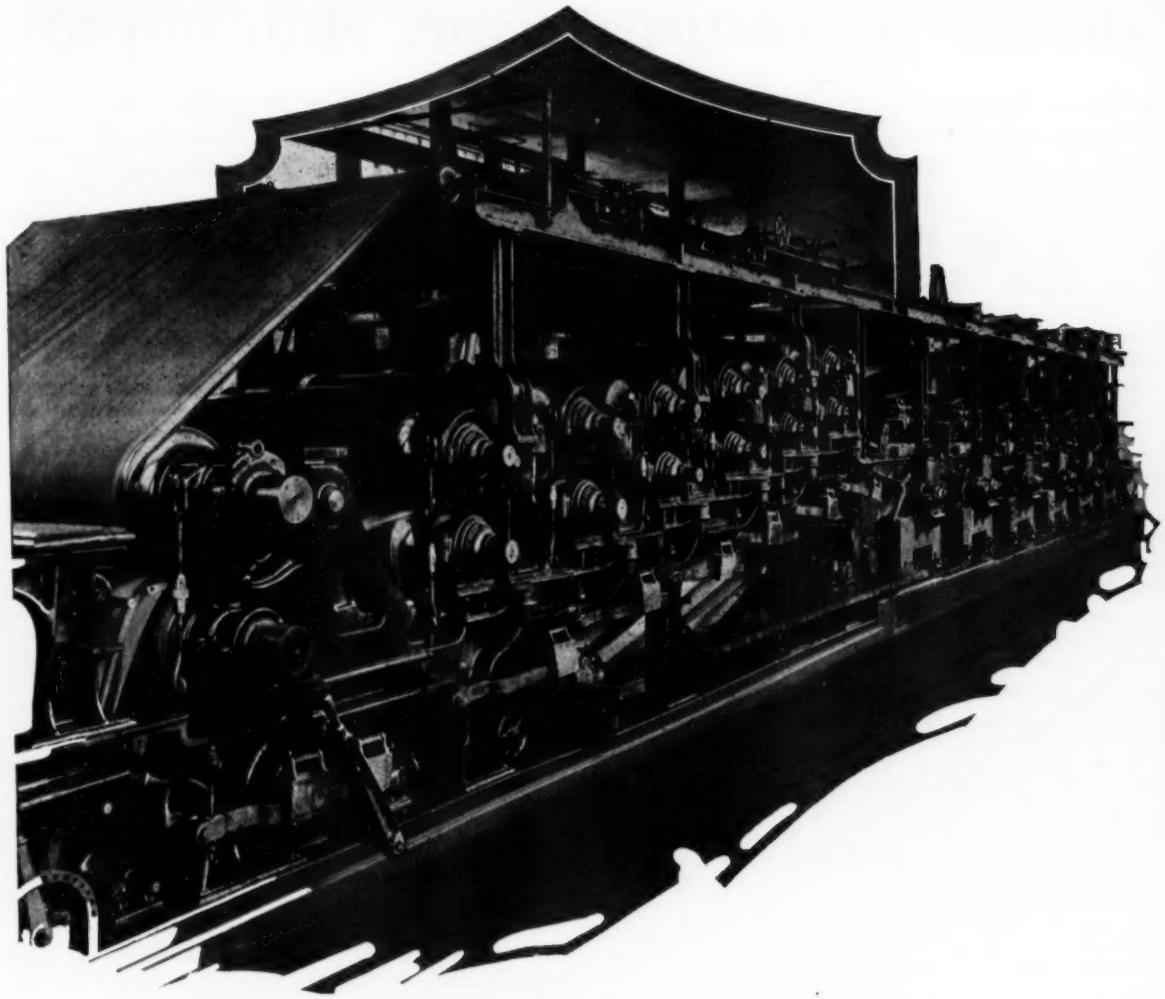
Specialized electrification of two paper mills is indicated in the recent placing of contracts for two paper machines to be equipped with sectional electric drives.

One of these paper machines will be the largest kraft machine ever built, and will be located on the Pacific Coast in the Port Townsend, Wash., plant of the National Paper Products Company, a subsidiary of the Crown-Zellerbach Corporation. This is a 248 inch Bagley & Sewall machine designed for high speed production and a range of speed of 300 to 1,050 feet per minute.

The machine will be equipped with Westinghouse sectional electric drive and will embody all of the latest and improved features including the starting generator system, carbon pile type voltage regulators, and rotary contactor section regulating equipment.

This machine will be a part of a second unit, and on the completion of this unit the Port Townsend mill will be the largest kraft pulp and paper mill on the Pacific Coast.

The other machine will be located on the opposite side of the continent in northeast New England in the plant of the Champion International Company at Lawrence, Mass.



Tradition Ignored in this Model Board Machine

THE illustration shows the Press Part of one of the latest Downingtown Board Machines. This machine embodies many improvements contributing to consistent high tonnage on high quality board, ease of operation, low power requirements, freedom from breakdowns and long service life.

Note in the above that the Primary Press Roll Housings are all of the same height, the pitch being provided for by the stepped form of the base frames. This construction provides more room for stretchers, guides, whippers, etc., and makes felt changing easier. All primary rolls run on Timken Roller Bearings.

When in the market for a new machine (Cylinder or Fourdrinier) or if you want your present machine rebuilt, let us bid on your requirements.

Our Products Meet Our Promises

DOWNINGTOWN Manufacturing Company Downingtown, Pa., U. S. A.

CAN. REP. FOR KILBERRY SUCTION ROLLS - CHAS. WALMSLEY & CO. CANADA LTD., MONTREAL, QUE.

Canadian International Paper Mills Inspected

Woodlands Section of Canadian Pulp and Paper Association Studies Operations at Gatineau, Chelsea and Paugan Falls—Algoma Pulp, Paper & Dock Co. Plans to Construct News Print Mill in Ontario With Capacity of 200 Tons Per Day

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., August 13, 1928.—Members of the Woodlands Section of the Canadian Pulp and Paper Association—chiefly from Ontario and Quebec—gathered at Ottawa a few days ago for the annual outing. Through the courtesy of the Canadian International Paper Company, a program had been arranged, under the direction of Major L. M. Benson, that included the interesting features of log driving on the Gatineau River. The party met at the Chateau Laurier for luncheon on the afternoon of August 13 and left later for Maniwaki on special sleepers attached to the regular train. On Tuesday they left for La Croix depot, proceeding by boat to Baskatog Lake. Here there was a demonstration of towing operations under the direction of Colonel Johnson, who has designed much special equipment for this kind of work. The day also included a visit to Mercier. The following day the members of the party went to Low and proceeded to the Paugan Falls development, where there was an inspection of the dam and power house and the big log slide. The feature of the morning program was a demonstration of power driven saws. There was also a demonstration of power driven saws at Paugan Landing. At Chelsea the power house and log slide were looked over, while on the way back to Ottawa a stop was made at Farmers to see the lower power house of the Gatineau Power Company. Before the gathering dispersed the members of the party were taken by motor to the Gatineau mill of the Canadian International Paper Company, when special attention was paid to the study of the sorting operations at the mouth of the Gatineau, and the towing of logs down to the boom at the mill. The program concluded with luncheon at the Chateau.

Forest Fires in the Northland

Reports reached Port Arthur a few days ago of two fires in valuable timber areas of the big pulp and paper companies which are engaging the serious attention of the Ontario Forest Patrol Service air and land forces. In the Onaman Lake section of the township of Paska, northwest of Long Lac there was a bad fire to combat, while in the Gull Lake section, east of the southern end of Lake Nipigon, another serious blaze had to be fought in the Fort William Pulp and Paper Company's limits. A gang of 17 men went out from Port MacDiarmid to fight the Gull Lake fire, cooperating with one airplane. A force of about the same proportions, also with one plane, engaged the Onaman Lake blaze. Both used hand pumps and other equipment. The Gull Lake section is 100 miles northeast of Port Arthur and the Onaman Lake 200 miles northeast. A considerable expanse of timber and pulp lands are said to have been laid waste before heavy rains aided in quenching the flames.

Algoma Pulp Co. Acquires Holdings

Details of the organization of the Algoma Pulp, Paper and Dock Company, which was floated in London, England, two weeks ago, reached Toronto a few days ago. Although the company is incorporated in Ontario, all the stock, with the exception of certain blocks of common allotted to the promoters, has been offered in London. Timber in 799 square miles of Crown lands is valued at $7,700,000 and plant and equipment are appraised at $1,500,000. As is the invariable rule as regards English prospectuses, the details of the issue are complete, including the statement of the contracts the company has entered into. The underwriter is Woodger Industrial Trust, Ltd., which is represented on the board by Captain Woodger. James Lyons, former Ontario Minister of Lands and Forests, will receive from the vendors, who gave an option to J. D. McNish, Toronto solicitor, $104,000 in cash, or in lieu thereof 205,160 shares of common stock and $4,000 cash. General Hogarth will receive $69,333 in cash or in lieu thereof 137,170 shares of common stock and $2,666 in cash. Harvey D. Morris, also a director of the company, will receive $100,000 ordinary shares of the company. Three other agreements detailing the price paid for the Austin & Nicholson properties and the arrangements whereby the new company acquires control are set forth in the incorporation papers which authorize the Algoma Pulp, Paper and Dock Company to take over saw mills, timber rights, town sites, etc., of Austin & Nicholson, on the C. P. R., in north western Ontario, to build coal docks at Michipicoten Harbor, Ont., and to construct a news print mill with a capacity of 200 tons per day.

Canadian Paperboard's Big Machine

The new mill of the Canadian Paperboard Company on the lake front in Toronto will go into operation during the first week in September. Originally it was planned to commence manufacturing by August 1, but the usual delays in the erection of the plant and the installation of the equipment have delayed the commencement of operations. In the mill is being installed the largest paper board machine in Canada. It has a rated capacity of 125 tons daily. The completion of the new mill will, of course, augment earnings by increasing sales. In addition, though, it is understood, that through its location the mill will affect certain savings in transportation costs for the company. To finance in part the present expansion, the company some time ago increased its outstanding bonds. The bonds have been well distributed and the present price of the issue is 102. Current quotations for the preferred shares are between 95 and 100.

Will Not Extend Soda Plant Yet

Statements have appeared from time to time that the management of the Howard Smith Paper Mills is considering the immediate expansion of the company's subsidiary soda pulp mill at Cornwall, Ont. It is learned on reliable authority, however, that the company will not increase the capacity of the plant this year. Before the recent acquisition of the Howard Smith Paper Mills by the present company, the predecessor organization owned about 50 per cent of the shares of the Canadian Cellulose. This company is now controlled by Howard Smith. Its plant is at Cornwall, Ont., adjacent to the mills of the parent company. It has a rated capacity of 50 tons of bleached soda pulp daily. The production is used by the parent company. At the time of the construction of the soda mill, the plant was laid out so that the capacity could be extended to 75 tons daily with a minimum of expense. At some future date, however, expansion along these lines can be expected, but the time does not appear to be yet. When the financing of the present Howard Smith Company was undertaken a few weeks ago, it was stated that the annual capacity of the plants was being increased from 30,000 to 38,500 tons of paper annually. This expansion has been successfully completed by the installation and operation of a new machine at the Cornwall plant with a daily capacity of 40 tons. The machine has been in operation a month and has produced as much as 35 tons a day. With the further operation of the unit it will be tuned up until it reaches its rated capacity.

Notes and Jottings of the Trade

The Ontario Minister of Lands and Forests is calling for tenders for the right to cut the pulpwood on Blocks 1, 2, 3 and 4,

A Good Slogan for 1928

In the MACHINE ROOM, GRINDER, BEATER, FINISHING *and* STORAGE ROOMS.

ROSS SYSTEMS
Ross-Briner Economizers
(licensed under patents of E. A. Briner and John E. Alexander)

Ross Vapor Absorption System

Ross-Grewin High Pressure Vapor Removal

Ross Machine Room Heating and Ventilating Systems

Ross Grinder Exhaust System

Ross Heating Systems for Finishing, Beater and Storage Rooms

Ross Drying and Air Conditioning Systems

Remodeling of Unsatisfactory Systems

This year, more than ever before, the elimination of waste and reduction in operating costs will be imperative in every department of the mill. One of the most disastrous sources of waste will be found in the lack of proper heating and ventilating or the prohibitive expense required to operate an inefficient heating and ventilatng system. Tremendous savings are now made possible through utilization of waste vapor, reduction in steam costs, improvement in working conditions and production, in the various sections of a mill by means of scientific heating and ventilating. Now is the time to discuss with our engineers the requirements for securing these savings in your mill.

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303 Lumbermen's Bldg., PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED
NEW BIRKS BLDG., MONTREAL

ROSS SYSTEMS
HEATING—VENTILATING—DRYING

east of K-18 and an area south of K-18, all in the vicinity of Upper and Lower Scotch Lakes, near English River Station on the C. P. R., District of Kenora. Tenders are being received up to September 4.

The United Paper Mills, Ltd., Toronto, London and Hamilton, have just sent out for insertion in their permanent sample cabinets in the hands of paper users, samples of United Bond, which is now made in colors—blue, pink, buff, green, canary, golden rod and white. The paper is now being manufactured to meet the demand for an unwatermarked colored sheet for loose leaf and other office forms, inter-office letterheads, and all jobs where an inexpensive stock is indicated. Because of its color range United Bond is effective for advertising pieces calling for unusual and startling color combinations. The samples have been sent out enclosed in a folder of Dominion Cover, double thick scarlet.

C. De Wolf Reid, of the Western Quebec Paper Mills, St. Andrews East, Quebec, was a business visitor in Toronto a few days ago.

John Hewitt, Jr., president of Canadian Paper Sales, Ltd., King street, Toronto, is enjoying a week's fishing at Bancroft, Ont.

R. I. Finlay, head of the United Paper Mills, Ltd., Toronto, has gone, with his family, to spend a vacation at Bay View Beach, Maine.

The latest number of Provincial's Papyrus, the house organ put out by Provincial Paper, Ltd., head office Toronto, has just been put in the mails to paper dealers and printers. The book contains a lot of well selected and timely articles dealing with paper sales, paper manufacture and the handling of paper by the printer.

Julia M. Barker, Ltd., with an authorized capital of $500,000 and headquarters in Toronto, has been granted a Dominion charter. The new company is authorized to construct and operate pulp and paper mills, and to engage in the manufacture and sale of pulp and all pulp products. Toronto lawyers are mentioned as the incorporators.

T. A. Weldon, vice-president of Provincial Paper, Ltd., Toronto, attended a reunion of the Davis family in Woodstock, Ont., a few days ago, of which his wife is a member. There were 150 of the Davis family connection present.

The Barber Division at Georgetown, Ont., of Provincial Paper, Ltd., has been undergoing a lot of rehabilitation lately, with the result that the mill has now pretty well lost its one-time identity as one of the oldest paper mills in the Dominion. The mill was established by Barber & Sons back in the eighties and for many years it has been operated by Provincial in the manufacture of coating papers, with Edward McWhirter as superintendent. The entire structure has been practically renewed throughout with the exception of the machines, the boilers renewed, the roof of the machine room elevated, new walls built and a considerable amount of new equipment added. Already turning out an excellent line of coating papers, it is proposed by the company to still further improve the grades being manufactured at the Barber plant.

To Buy Machinery for Australian Mill

INTERNATIONAL FALLS, Minn., August 14, 1928.—Albert B. Gregg, formerly a foreman in the sulphate pulp mill of the Minnesota and Ontario Paper Company, has received a letter from H. Theodore Price from Australia. This letter states that Mr. Price intends to visit this country about the first of the year in search for board forming and drying machinery.

The machinery is intended to be used in a new mill in that country. Besides this mill there is to be a mill for the manufacture of artificial silk.

Mr. Price has been connected with a company backed by British capital. The new mill will be equipped with American machinery.

Mr. Gregg has had a number of years experience in the manufacture of pulp and paper. He will assist Mr. Price in selecting the equipment for the proposed mill.

Box Board Production for June

WASHINGTON, D. C., August 13, 1928.—June production of box board, based on reports to the Department of Commerce by 93 firms operating 120 plants (reports for earlier months including four concerns now out of business) was 79.7 per cent of capacity, as compared with 84.7 per cent in May and 75.0 per cent in June, 1927. In the following table the capacity data vary according to the normal number of working days in each month:

Year and Month	Operation			Production			New Orders	Unfilled Orders (end of month)
	Inch hours		Per cent of Capacity	Short Tons		Per cent of Capacity		
	Capacity	Operated		Capacity	Output		Short Tons	
1927								
Jan.	10,474,300	6,998,505	66.8	275,100	173,629	63.1	194,285	105,669
Feb.	10,055,328	7,583,477	75.4	264,096	189,273	71.7	183,861	102,005
March	11,312,244	8,627,946	76.3	297,108	219,824	74.0	230,065	114,369
April	10,893,272	7,771,040	71.3	286,104	205,589	71.9	197,435	101,861
May	10,474,300	7,836,315	74.8	275,100	200,216	72.8	194,122	93,248
June	10,893,272	8,277,054	76.0	286,104	214,704	75.0	213,735	94,847
Total (6 mos.)	64,102,716	47,094,337	73.5	1,683,612	1,203,235	71.5	1,213,503	.....
1928								
Jan.	10,372,900	7,833,458	75.5	273,125	203,882	74.6	204,128	80,417
Feb.	10,372,900	8,136,737	78.4	273,125	211,862	77.6	215,333	85,862
March	11,312,244	8,843,542	78.2	297,108	227,344	76.5	244,871	93,380
April	10,474,300	8,311,710	79.4	275,100	221,079	80.4	211,304	84,513
May	10,893,272	8,733,965	80.2	286,104	242,394	84.7	224,366	73,157
June	10,893,272	8,231,339	75.5	286,104	228,134	79.7	228,252	77,882
Total (6 mos.)	64,318,888	49,090,751	76.3	1,690,666	1,334,695	78.9	1,328,254	.....

Year and Month	Shipments of boxboard	Stocks of boxboard, end of month	Consumption of waste paper		Per cent of Capacity	Stocks of waste paper, end of month	
			Capacity	Consumed		At plants	In transit and unshipped purchases
	Short Tons		Short Tons			Short Tons	
1927							
January	175,528	53,562	256,450	163,337	63.7	163,023	38,062
February	189,032	53,327	246,192	182,322	74.1	158,222	40,602
March	217,876	54,566	276,966	209,730	75.7	155,513	43,789
April	209,944	50,211	266,708	189,942	71.2	147,938	46,314
May	201,788	48,906	256,450	193,077	75.3	149,438	59,289
June	211,828	52,452	266,708	207,187	77.7	151,671	43,807
Total (6 mos.)	1,205,996	.....	1,569,474	1,145,595	73.0	.....	.....
1928							
January	196,984	49,032	255,225	189,744	74.3	153,747	62,181
February	209,477	50,350	255,225	193,966	76.0	140,104	60,038
March	237,621	40,439	276,966	209,649	75.7	139,255	47,322
April	220,315	40,319	256,450	211,898	82.6	132,621	47,551
May	235,794	49,107	266,708	220,750	82.8	127,217	46,375
June	223,693	53,384	266,708	203,861	76.4	130,735	43,440
Total (6 mos.)	1,323,884	.....	1,577,282	1,229,868	78.0	.....	.....

Mexican Paper Industry on Broader Basis

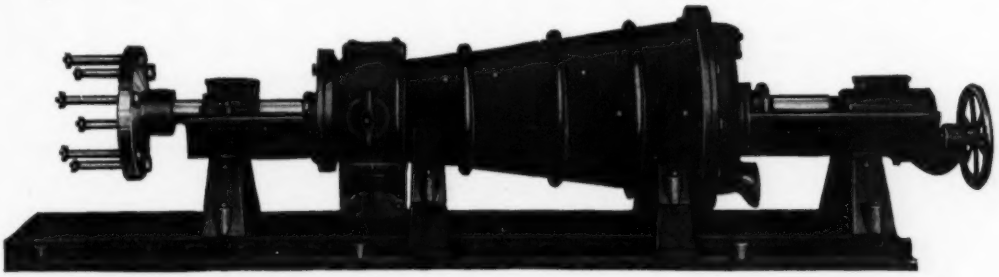
Capital invested in the paper manufacturing industry in Mexico during 1927 amounted to 12,556,014 pesos, according to figures just released by the Bureau of National Statistics. This is a slight decrease from 1926, when the investment amounted to 12,972,797 pesos.

Production in 1927 amounted to 27,667 tons, as compared with 23,949 tons in 1926. Sales in 1927 were 26,925 tons, and in 1926 21,789 tons.

The number of persons employed in the paper industry in 1927 was 2,085, of whom 1,235 were men and 83 women and 63 minors, as day laborers, and 201 men, 2 women and 123 minors on piece work. A total of 159 common laborers was employed, the remainder being salaried employees.

News Print Merger Rumors Persist

MONTREAL, Que., August 13, 1928.—The rumor factory is still working hard in connection with further suggested mergers of Canadian news print mills, but whether it is working on solid material or on stories put forward in the hope of arresting the decline in news print shares is not clear. The latest output of the factory is a story to the effect that the powerful Abitibi Power and Paper Company may merge with the International Paper Company; in fact, from one quarter it is suggested that the only thing delaying the deal is the fact that one other large Canadian paper company wants to come in on the deal. Well-informed interests discredit the story, but it persists.



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Some Special Features

1 Sliding Brass Gate, permitting removal of all foreign substances while refiner continues in operation.

2 Means of quickly maintaining alignment of plug and shell.

3 Patented Flexible Coupling allows endwise movement of plug without changing position of motor. Alignment of plug shaft with motor shaft not necessary.

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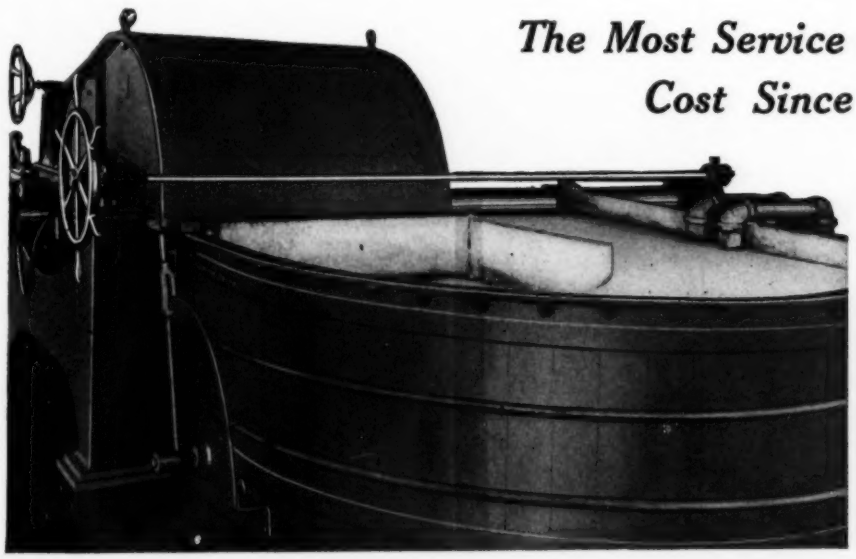

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EMERSON MFG. CO., LAWRENCE, MASS.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Appleton, Wis.—The Fox River Paper Company, South Appleton street, has work under way on a new boiler house addition, reported to cost in excess of $25,000, with equipment; general contract recently was let to the C. R. Meyer & Sons Company, 50 State street, Oshkosh, Wis. Orbison & Orbison, 110 West College avenue, Appleton, are engineers.

Baldwinsville, Mass.—The A. L. Adams Paper Company has awarded a general contract to the Fiske-Carter Construction Company, 11 Foster street, Worcester, Mass., for a new addition to its mill, to be two-story, 75 x 200 feet, reported to cost in excess of $50,000, with equipment. Work will begin at early date.

Riegelsville, N. J.—The Warren Manufacturing Company is installing additional equipment at its local mill, in connection with general expansion and betterment program recently inaugurated, and will develop considerable increase in former capacity. A contract has recently been awarded to the General Electric Company, Schenectady, N. Y., for an electric motor drive for a new paper machine unit.

Richvale, Cal.—The Pacific Coast Pulp and Paper Company, Los Angeles, Cal., recently organized with capital of $1,500,000, has engaged Peter Swan, Lewis Building, Portland, Ore., engineer, to prepare plans for its proposed new pulp and paper mill at Richvale. Initial mill will consist of three units, one, two and three-story high, with boiler plant of 600 hp. capacity, and will cost in excess of $500,000, with machinery. It is purposed to break ground in September. D. M. Thomas, Santa Monica, Cal., is president of company; C. A. Kieren, Clunie Hotel, Sacramento, Cal., is superintendent of construction, in charge.

Philadelphia, Pa.—The Philadelphia Fibre Boxboard Mills, Inc., Delaware avenue and Tasker street, is said to be arranging an investment in excess of $100,000, in its new mill addition, instead of smaller sum previously noted in these columns. Superstructure will soon be placed under way. New unit will be three-story and basement, 50 x 120 feet.

New York, N. Y.—The American Bank Note Company, 70 Broad street, has awarded a general contract to the Cauldwell-Wingate Company, 101 Park avenue, New York, for extensions and improvements in its factory on Barretto street, near Lafayette street, reported to cost in excess of $200,000. O. P. Cadmus, 157 East 44th street, is architect.

Monroe, Mich.—The Consolidated Paper Company has completed the erection of a new addition to its mill to be used for the manufacture of paper boxes and containers and will proceed with installation of machinery. The new unit will represent an investment of more than $400,000, and is scheduled to be ready for service during September.

Cedar Rapids, Iowa—The Kilborn Photo Paper Company, First avenue, manufacturer of special processed papers, has awarded general contract to Max Mildenstein, Merchants' National Bank Building, Cedar Rapids, for proposed new plant unit at First avenue and Twenty-ninth street, to be two-story, 60 x 165 feet, brick, estimated to cost approximately $40,000, with equipment. Norman Hatton, O. R. C. Building, Cedar Rapids, is architect. Paul Kilborn is head.

Tampa, Fla.—The Florida Container Company, recently chartered by John T. Ladue and T. M. Shackleford, 933 Golf View avenue, Tampa, and associates, with capital of $50,000, has taken over a building on Mississippi avenue, and will remodel and improve for new plant for manufacture of paper boxes and containers, with department for production of fiberboard containers. Machinery will be installed at early date for initial output of about 175,000 boxes per month, with capacity to be increased at a later date.

Medford, Mass.—The Worcester Paper Box Corporation, care of Bartholomew J. Murphy, Park Building, Worcester, Mass., treasurer and representative, recently formed by Mr. Murphy and associates with capital of 1,000 shares of stock, plans early operation of local plant for manufacture of cardboard and paper containers. Hannah Z. Posner is president.

Kalamazoo, Mich.—The Kalamazoo Stationery Company, Harrison street, will soon begin work on a new one-story power plant at its factory, on site selected on Taylor street, reported to cost about $50,000, with equipment. Billingham & Cobb, Press Building, Kalamazoo, are architects and engineers.

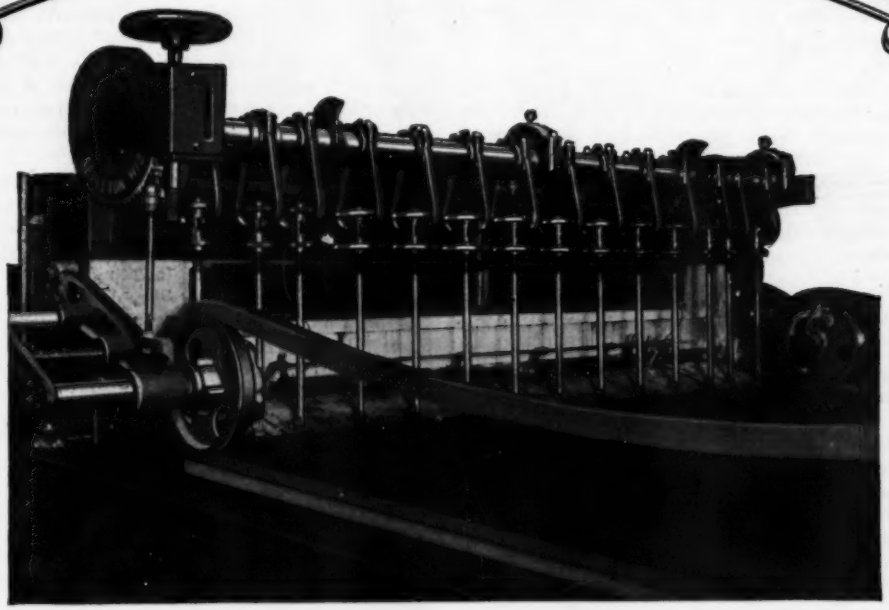
Trenton, N. J.—Officials of the Middlesex Paper Tube Company, Lowell, Mass., are organizing a new company under New Jersey laws, to be known as the Middlesex Paper Tube Company of New Jersey, Inc., capitalized at $100,000, to operate its proposed new local plant in portion of former works of the Mercer Automobile Company. Alterations in building are under way and installation of machinery will begin at an early date. The plant will be given over to production of paper tubes, cores and kindred specialties. Samuel Porton will be president and general manager of the New Jersey organization.

Kansas City, Mo.—The Mapes Consolidated Manufacturing Company, Tenth and Locust streets, manufacturer of corrugated paper goods for egg crate fillers and kindred service, is arranging for the immediate erection of a new addition, to be one-story, 60 x 200 feet, reported to cost about $20,000. It will be used primarily for storage and distributing service. Company headquarters are at Griffith, Ind. John C. Lawrence, Commercial Building, North Kansas City, Mo., is architect, in charge.

Appleton, Wis.—The Appleton Coated Paper Company, 1209 North Meade street, has awarded a general contract to the C. R. Meyer & Sons Company, 50 State street, Oshkosh, Wis., for proposed new mill unit, to be one-story, 107 x 240 feet, brick and steel type, estimated to cost about $130,000, with machinery. Work will be placed in progress at once. Lockwood, Greene & Co., 400 North Michigan avenue, Chicago, Ill., are architects and engineers, and will supervise construction and machinery installation.

Halifax, N. S.—Colonel C. H. L. Jones, president of the Canadian Pulp and Paper Association, and formerly an official of the Spanish River Pulp and Paper Mills, Ltd., Sault Ste. Marie, Ont., have organized a new company to be known as the Mersey Paper Company, Ltd., to construct and operate a pulp and paper mill on the Mersey River, Queens County, Nova Scotia, where site

Lower Production Costs-Better Paper



Voith Inlet installed on machine

After operating on twenty-two kinds of paper in 115 mills throughout the country, the Voith Inlet is definitely established as equipment that does lower production costs and makes better paper. That's why these 115 mills now operate 240 Voith Inlets.

Economy of operation is established on many production items. Here are some of the items where savings are shown:

Wires last 10% to 15% longer
Paper of uniform caliper
Fewer lumps and foam spots
Fewer shutdowns of machine from breaks
More wire is used for formation purposes.

Details of these items are of interest to every mill trying to lower production costs without sacrificing quality. Let us send you our special booklet on the Voith Inlet—yours for the asking.

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

APPLETON WISCONSIN

New York Office: 350 Madison Avenue

Western Manufacturing & Sales Division: Smith & Valley Iron Works Co., Portland, Ore.

has been selected. The project will consist of several units, and is reported to cost close to $5,000,000, with machinery. It is understood that the new mill will be given over to news print production.

Montreal, Que.—The Standard Paper Box Company has work under way on a new addition to its plant, to be one-story, reported to cost in excess of $70,000, with equipment, and proposes to have the unit ready for machinery installation at an early date. General contract recently was let to the A. Leduc Company, 1488 Gilford avenue, Montreal. Bauline & Leonard, Montreal, are engineers, in charge.

Bangor, Mich.—The Ex-cell Paper Company, Bangor, E. Kellmer, president, has engaged Billingham & Cobb, 211 Woodward avenue, Kalamazoo, Mich., architects and engineers, to prepare plans for a new mill on local site, consisting of several one and two-story buildings, with machine shop and other mechanical structures, reported to cost close to $500,000, with machinery. It is understood that bids will be asked on general contract at early date.

Cincinnati, Ohio.—The Leschner Paper Company, State and Harrison streets, has completed plans for a new two-story building on State Street, designed for storage and distributing service, estimated to cost close to $70,000, with equipment. General contract has been let to the Ferro Concrete Construction Co., Elm Street, Cincinnati, and work will proceed at once.

Green Bay, Wis.—The Northern Paper Mills, Inc., Day street, will proceed with erection by day labor on new three-story addition to mill, to be 112 x 300 ft., brick and steel frame type, reported to cost more than $50,000. The unit will be used largely for storage and distributing service. Contract for structural steel has been let to Worden-Allen Company, Milwaukee, Wis.

Chicago, Ill.—The Chicago Printed String Company, 2411 Clybourn avenue, manufacturer of paper tape products, has authorized plans for a new plant on Logan Boulevard, near Elston Avenue, to be two-story and basement, 85 x 125 feet, brick and concrete, reported to cost about $175,000, with machinery. It is proposed to remove present works to new location and provide additional equipment for large increase in output, or close to 1½ million yards per day. Alfred S. Alschuler, 53 West Jackson Boulevard, is architect.

New York, N. Y. The Metro Paper Specialties Company, Inc., care of Samuel Mencher, 931 East 179th street, recently organized by Mr. Mencher and associates, with capital of 200 shares of stock, no par value, plans early operation of local plant for manufacture of line of paper goods. Emaneul Mencher is also interested in new organization.

Portland, Ore.—The Western Wax Paper Company, North Portland, has awarded general contract and miscellaneous subcontracts for proposed new mill addition adjoining present plant and duplicating that structure; it will be one-story, 112 x 140 ft., reported to cost more than $70,000, with equipment. Frank J. Leonard, Lewis Building, is general contractor; an award for grading site has been let to Taylor Brothers, Portland; and contract for steel work to Truscon Steel Company, 463 Kerby Street, Portland.

Baltimore, Md.—The Baltimore Sales Book Company, 3122 Frederick avenue, will soon take bids on general contract for new one-story addition to its paper goods and printing plant, reported to cost about $35,000, with equipment. T. T. Speer is president.

Chicago, Ill.—The Levy Brothers Paper Company, 1510 Newberry avenue, is said to be planning early rebuilding of portion of plant destroyed by fire, July 29, with loss estimated at close to $50,000, including equipment and stock. Reconstruction will cost close to like sum.

St. Louis, Mo.—The Waite Paper Company, Newstead and Hunt avenues, has approved plans for the construction of a new plant on local site reported to cost more than $75,000, with equipment and will proceed with work at early date. Contract for reinforcing steel, etc., has been let to the Missouri Rolling Mill Company, 6800 Manchester Avenue, St. Louis.

Chicago, Ill.—The Container Corporation of America, 111 West Washington street, has engaged Francisco & Jacobus, 360 North Michigan avenue, architects and engineers, to prepare plans for proposed new corrugated board and paper mill on site recently selected at 900 Ogden Avenue. The new unit will be one and two-story, brick and reinforced concrete, and is reported to cost more than $750,000, with machinery. It is proposed to ask bids on general contract at an early date. The company recently disposed of a bond issue of $6,000,000, and will use a portion of the funds for expansion. Walter P. Paepcke is president.

Spokane, Wash.—Richard Clayton, Victoria, B. C., is at the head of a project to construct and operate a plant at Seattle, for the manufacture of strawboard and boxboard products, consisting of several one-story units reported to cost close to $300,000, with machinery. It is proposed to organize a company to carry out the enterprise.

Kalamazoo, Mich.—The Kalamazoo Paper Box Company, East Kalamazoo and Pitcher Avenues, has broken ground for construction of new two-story plant, 50 x 100 ft., reported to cost approximately $45,000, for which general contract recently was let to the O. F. Miller Construction Company, Pratt Building, and proposes to have unit ready for equipment installation at an early date.

Sacramento, Cal.—The Zellerbach Paper Company, 1213 Front street, has plans in progress for the rebuilding of portion of local plant recently destroyed by fire and will begin work at an early date. New structure will be a three-story, totaling about 32,000 sq. ft. of floor space, and will be used for general production as well as for storage and distributing service. It will cost about $100,000, with equipment.

Nekoosa, Wis.—The Nekoosa-Edwards Paper Company has work under way on a new one and two-story addition to its mill to be used for general increase in finishing and other departments, with main section, 85 x 200 feet. Entire project is reported to cost more than $80,000. E. P. Gleason is company engineer.

New York, N. Y.—The Envelope Manufacturers Corporation, 125 White street, has leased a portion of building at 472-4 Broome street, and will occupy for expansion.

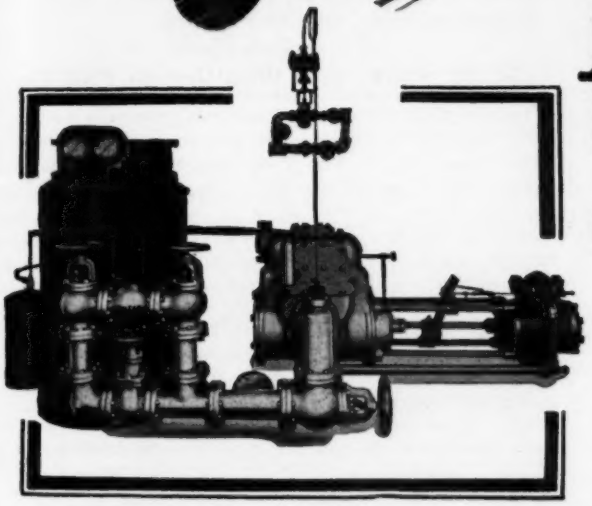
Indianapolis, Ind.—The Bethard Wall Paper Company, Inc., has work under way on a new two-story building at 415-19 Massachusetts avenue, to replace a structure recently destroyed by fire. The new building will approximate 20,000 sq. ft. of floor space and will be given over largely to storage and distributing service. It is reported to cost about $75,000. W. J. Bethard is president, and James A. Nickerson, vice-president.

Springfield, Mass.—The United States Envelope Company, Cypress street, has taken title to a tract of land fronting 120 feet on Grays avenue, near its mill, and will develop the property as a feature of employes' welfare program for automobile parking facilities for operatives at the mill and others. Present structures on site will be razed and new program carried out.

Mobile, Ala.—The International Paper Company of Alabama, Inc., has been organized by officials of the International Paper Company, 100 East 42nd. street, New York, to carry out recently announced mill project on Mobile Bay, Mobile, where site was lately acquired. It is said that work will begin at once on initial plant units to develop a capacity of about 170 tons of kraft paper per day and new organzation will be in charge of construction and operation. The complete project is reported to cost close to $5,000,000, with machinery, with mill having facilities for employment of more than 450 operatives. R. J. Cullen is vice-president of parent organization and will be an official, it is understood, of new subsidiary.

Why certainly!

Fulton had a Hand in making these Records



360 Miles of News Print

(30 hours without a break)

62½ Hours on another Non-Stop Run

You feel that everything has to be right when a high speed news machine reels off 360 miles of paper without a stop or break. You KNOW it's so when another spins off twice as much, twelve car loads, 62½ hours without a break.

In both mills, a Fulton Dryer Drainage installation played an important part, kept the paper machine dryers right up to scratch. Such runs could never have been made with an inferior dryer drainage system.

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Dryer Drainage Systems

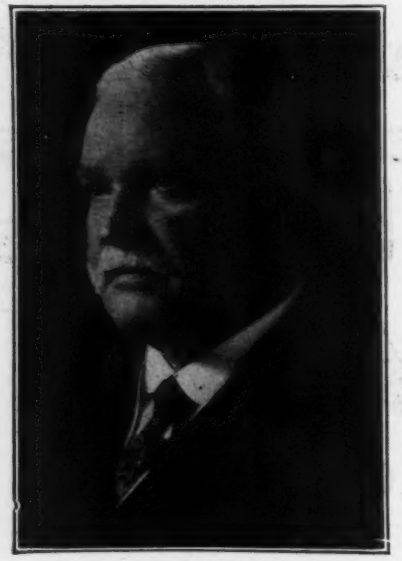
Obituary

William H. Clark

William H. Clark, widely known in the paper trade as Eastern sales manager of The Howard Paper Company and allied mills, The Aetna Paper Co. of Dayton, O., and The Maxwell Paper Co., Franklin, O., died at his home in New York City on July 28, after being in failing health for the past two years.

Mr. Clark was born in New England and began his career in the paper industry in the Dickenson Mill of the American Writing Paper Company, Holyoke, Mass. He later founded the Brown & Clark Company, paper merchants, of St. Louis, and left this company thirty-two years ago to associate himself with Colonel H. M. Howard as sales manager of The Aetna Paper Company of Dayton, O.

When The Howard Paper Company, Urbana, Ohio, was placed in operation in 1910, Mr. Clark was given entire charge of sales



WILLIAM H. CLARK

and continued in this capacity for several years until it became necessary to establish Eastern and Western Sales Offices in New York City and Chicago. At this time he took charge of the New York office and was acting as Eastern sales manager for the three allied Howard Mills at the time of his death.

Mr. Clark had resided for the past fifteen years at the Roxborough Apartments, 251 W. 92nd street. The funeral was held in New York, July 30 and was attended by numerous friends from the paper trade, many representatives being present from the National Paper Trade Association as well as mill executives. Burial was made in St. Louis, Mo., August 1. Mr. Clark leaves a widow and an older sister.

He was a man whose magnetic personality won him countless friends and whose high ideals and persuasive power made him a peer among salesmen. He was held in the highest esteem by all who knew him and his passing is a distinct loss to the entire paper trade.

W. H. Garrabrandt Fatally Burned

FORT EDWARD, N. Y., August 6, 1928.—An accident early this week at the Fort Edward plant of the International Paper Company claimed the life of William H. Garrabrandt, chief electrician at the mill for a number of years. Mr. Garrabrandt was engaged in connecting a portable electric welder when loose wires caused a short circuit resulting in an electric flash which ignited his clothing. He was severely burned about the face, chest, arms and body before the flames could be extinguished by fellow workers. Michael Gursky, who was helping Mr. Garrabrandt, was also burned about the chest and right arm. After first aid was administered at the mill the two men were removed to the Glen Falls Hospital where it was early recognized that Mr. Garrabrandt's injuries were of a critical nature and small hope was held out for his recovery. He lived for about twenty-four hours after the accident. Gursky is still confined to the hospital but his condition is not serious.

Mr. Garrabrandt, who was forty-eight years old, had been connected with the Fort Edward mill for many years and was one of the most popular workers in the plant. He was prominently identified with the social life at the mill, being an officer of the Thomas Adriance Chapter, Mutual Benefit Association. He was a member of the Fort Edward Lodge of Masons, the Odd Fellows and the Eastern Star. His widow survives.

R. W. Shaver Goes With Oswego Falls Corp.

[FROM OUR REGULAR CORRESPONDENT]

FULTON, N. Y., July 27, 1928.—Roy W. Shaver, a designing and construction engineer who has supervised the construction of many paper mills in New York State and Canada, has become identified with the Oswego Falls Corporation as supervising engineer. Mr. Shaver's duties will include supervision of construction of the additions to the Oswego Falls plant for which provision has been made. These include a two story and basement steel, brick and concrete mill which is to be erected to care for the expansion of the paper container department of the plant. A contract for the new mill has been awarded to the Austin Company, of Cleveland, Ohio, which firm is now preparing to ship construction equipment to Fulton. Building operations will get under way before August 1.

Mr. Shaver before coming to the Oswego Falls Corporation was construction engineer for the Carlisle interests and was in charge of construction of the new steel and concrete plant of the Taggart-Oswego Bag and Paper Corporation, and the new mill of the Oswego Board Corporation in Oswego. He resigned his connection with the Carlisle interests July 1 to become identified with the Oswego Falls Corporation. Prior to coming to Northern New York Mr. Shaver had considerable experience in the designing and construction of paper mill properties in Canada.

Abitibi's Headquarters

According to the *Financial Post*, of Toronto, the decision of the Abitibi Power and Paper Mills to move headquarters from Montreal to Toronto and to erect a large office building on University avenue was not voluntary on the part of the company's directors, but the result of quiet but definite pressure from the Ontario government. A number of other corporations are expected to do likewise. The paper adds:

Following the failure of Premier Ferguson's fight with Premier Taschereau in his efforts to secure for Ontario a share of the business from the new Quebec mining areas on Ontario's border, a strong feeling developed against the concentration of Ontario business in Montreal. This crystallized into a new Ontario policy of insisting that all Ontario industries and near industries which are dependent upon Ontario for raw material or markets must have their chief place of business in the province instead of in Montreal.

In the case of Abitibi, pressure was not really required, merely a suggestion.

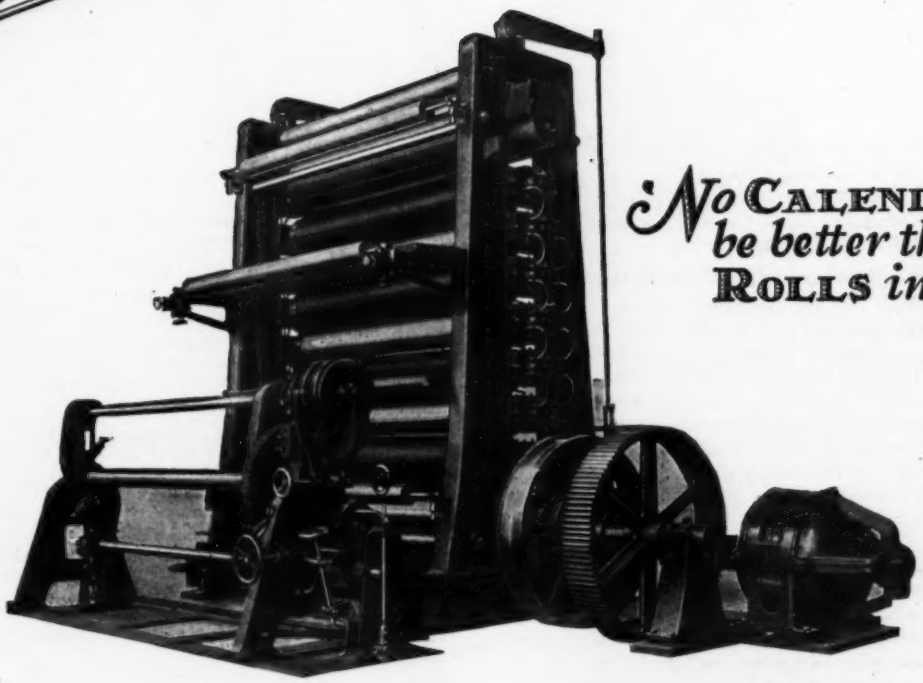
George Weeks Leaves Harrisville Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

HARRISVILLE, N. Y., August 14, 1928.—George Weeks has resigned as tour boss at the plant of the Harrisville Paper Company. Mr. Weeks has held this position for a number of years, first coming to the local plant when it was owned by the Diana Paper Co. His plans for the future have not been made known.

PERKINS HOLYOKE

Web Super-Calenders



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In the development of Perkins Web Super-Calenders the Perkins organization has taken due recognition of ruggedness necessary for modern operating speeds and conditions.

These machines are the result of close association with the paper industry for more than half a century. They are made for finishing paper in the *most satisfactory way it can be done.*

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BLEACH EJECTORS

Paperboard Industries Association Meets

Members of the Paperboard Industries Association met at the Clifton Hotel, Niagara Falls, Ontario, Wednesday, July 18, and Thursday, July 19, in Group and General Sessions.

On Wednesday, July 18, members of the Folding Box Group met in the morning, with Vice-President H. S. Hinkle, president of the National Folding Box Company, New Haven, Conn., presiding. The meeting of the Paperboard Group, at which Vice-President E. R. Hankins, of the Container Corporation of America, Chicago, presided, convened in the afternoon.

J. J. Brossard, of the Fort Wayne Corrugated Paper Company, Fort Wayne, Ind., vice-president of the Container Group, presided at the meeting of that group, which was held Thursday morning, July 19.

The General Meeting of the three groups in joint session, attended by members of the Paper Board, Container and Folding Box Groups, was held Thursday afternoon, July 19. W. J. Alford, Jr., of the Continental Paper Company, the president of the association, presided at the General Meeting.

General Meeting of the Three Groups

The General Meeting of the association, attended by members of the three groups, convened at 1:30 p.m., Thursday, July 19.

As a first order of business, President Alford announced that a meeting of the Executive Committee had been held on July 17. He submitted the report of the Executive Committee, which was unanimously adopted by the membership. In the Executive Committee's report, mention was made of all subjects considered by the Committee, including the following:

1. Association Finances.
2. Application for Membership.
3. Bradford Mill Supply Company vs. Paperboard Industries Association, et al.

This suit was instituted by a Mr. Barrett, a lawyer of Haverhill, Mass., and principal owner of the Bradford Mill Supply Company, waste paper dealers, alleging conspiracy on the part of the Paperboard Industries Association and certain manufacturers of paper board, in allocating territory, depressing the price of waste paper, etc.

Announcement was made that the Massachusetts Court has sustained the Master's report and given a final decree for the defendants. The Master's report was favorable to the association and to the paper board manufacturers named as parties to the suit. It is not believed that the case will be appealed to a higher court.

4. Trade Practice Conference before Federal Trade Commission.

A member of the Container Group appeared before the committee and urged that the association promptly avail itself of the opportunity offered to have its suggested trade practices reviewed by the Federal Trade Commission. Such a trade practice conference affords a means through which representatives of an industry voluntarily assemble, either at their own instance or that of the Federal Trade Commission, but under the auspices of the latter, for the purpose of considering any unfair practices in their industry, and collectively agreeing upon and providing for their abandonment in cooperation with and with the support of the Commission. It is a procedure whereby business or industry may take the initiative and make its own rules of business conduct—its own law merchant, subject, of course, to sanction or acceptance by the commission.

The Executive Committee suggested that the above subject be discussed at the respective group meetings.

5. Waste Utilization and Stream Improvement.
6. Recommendations with regard to suspension of a Member Company account non-observance of the Washington Resolution in the matter of elimination of Sunday work in the paper board mills.
7. Inspection Service to Maintain the Quality of Corrugated and Solid Fiber Boxes.

Trade Practice Conference Before

The above subject was probably the principal topic of discussion, and in connection therewith, the meeting adopted the following resolution:

RESOLVED, That the president of the Paperboard Industries Association be authorized to appoint a committee of nine members, consisting of three members of each group, including the vice-president of each group, the president of the association to be an ex-officio member, said committee being empowered to engage expert counsel to direct the committee in arranging for a conference with the Federal Trade Commission; said conference to be arranged at the request of one, two or three groups of the Association.

The following is the personnel of the committee appointed pursuant to adoption of the above resolution; namely:

Folding Box Group Representatives: H. S. Hinkle, chairman, National Folding Box Company, New Haven, Conn.; H. H. Stonebarger, The Globe Folding Box Company, Cincinnati, Ohio; H. C. Campbell, Robert Gair Company, New York, N. Y.

Container Group Representatives: J. J. Brossard, chairman, Fort Wayne Corrugated Paper Company, Fort Wayne, Ind.; J. B. Fenton, Buffalo Box Factory, Buffalo, N. Y.; Samuel Samuels, American Corrugated Paper Products Corporation, New York, N. Y.

Paperboard Group Representatives: J. P. Brunt, chairman, Container Corporation of America, Chicago, Ill.; Sidney Freeman, The Hinde & Dauch Paper Company, Sandusky, Ohio; John L. Barchard, Hummel & Downing Company, Milwaukee, Wis. W. J. Alford, Jr., president Paperboard Industries Association (member ex-officio).

General Manager's Report

General Manager Browder submitted a concise report of the principal activities of the association since the May meeting. Specific mention was made of the following items:

1. General Association Activities.
2. Traffic and Classification Matters.
3. Relations with U. S. Department of Commerce.
4. Relations with the Navy Department in Connection with the Use of Containers.
5. Laboratory and Research.
6. Inspection Service to Maintain the Quality of Corrugated and Solid Fiber Boxes.

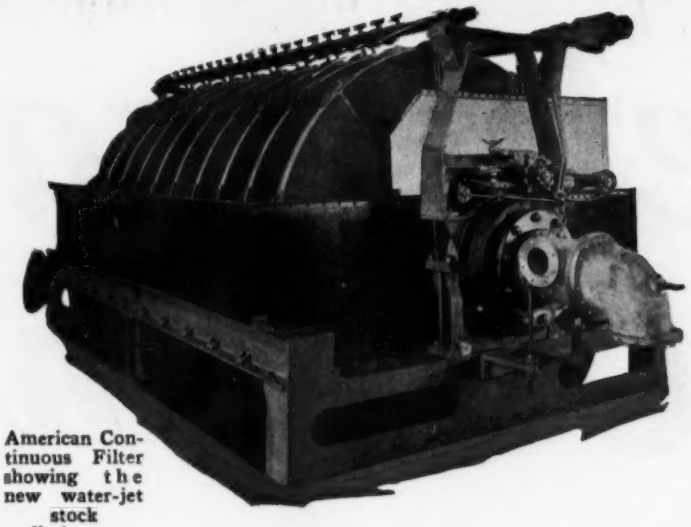
The general manager's report was received with interest, and ordered included with the minutes of the meeting.

Sales Promotion Committee's Report

Chairman J. H. Macleod and Sales Promotion Representative A. W. Luhrs reported in detail with respect to the effort put forth during the past two months to extend the use of folding boxes and corrugated and solid fiber containers. This constructive presentation was well received and members expressed their approval of the substantial progress that has been made in increasing the use of paper board, fiber containers and folding boxes. The committee's detailed report, consisting of 131 printed pages, has been mailed to all member companies. The report contains a number of illustrations of folding boxes and fiber containers designed for the packaging and shipment of specific commodities.

The members approved a special appropriation to cover the cost of preparation and distribution of pamphlets covering the following subjects:

"Folding Boxes for Coffee"; "Trucking Charges on Goods in Fiber Boxes."



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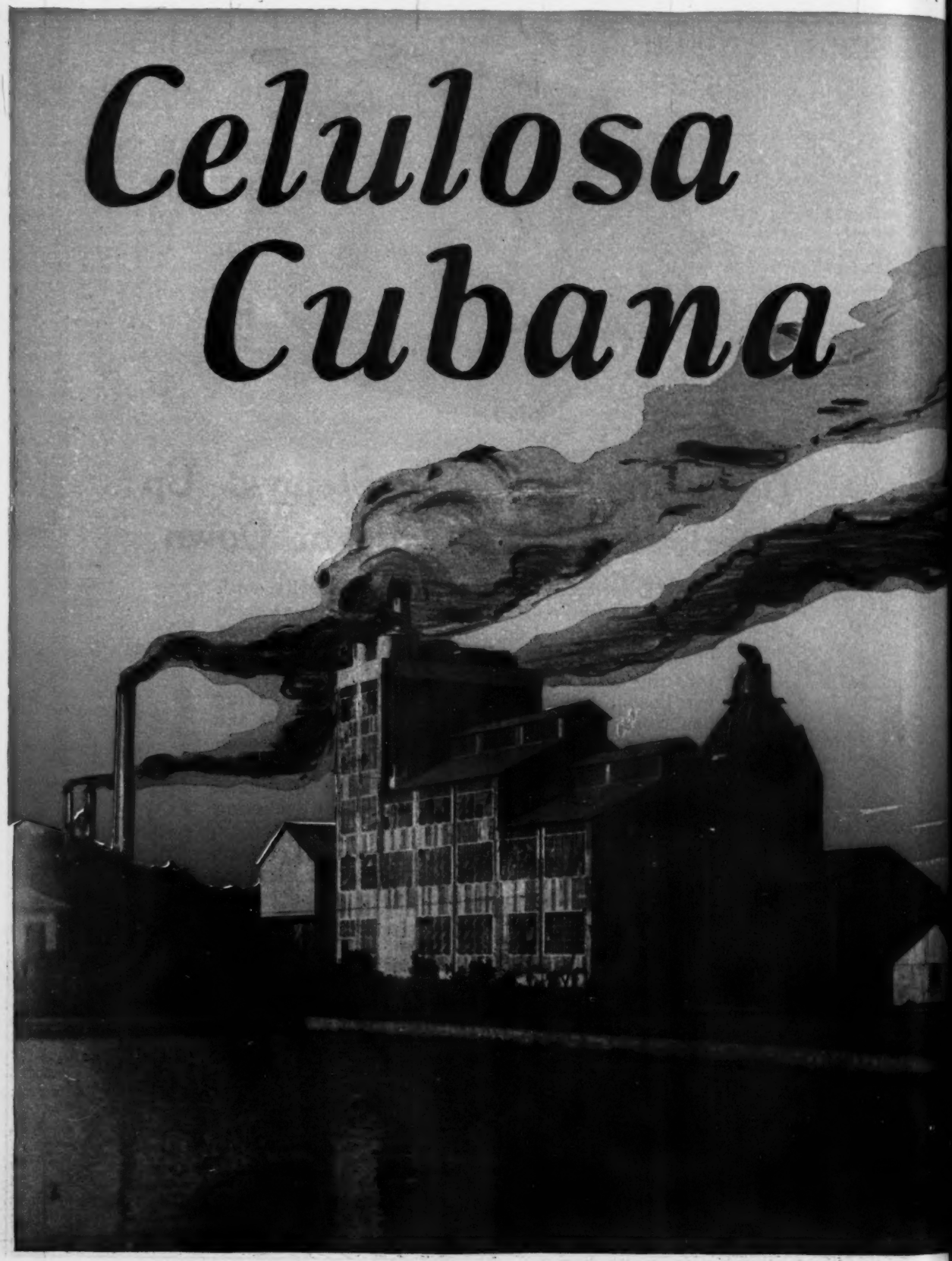
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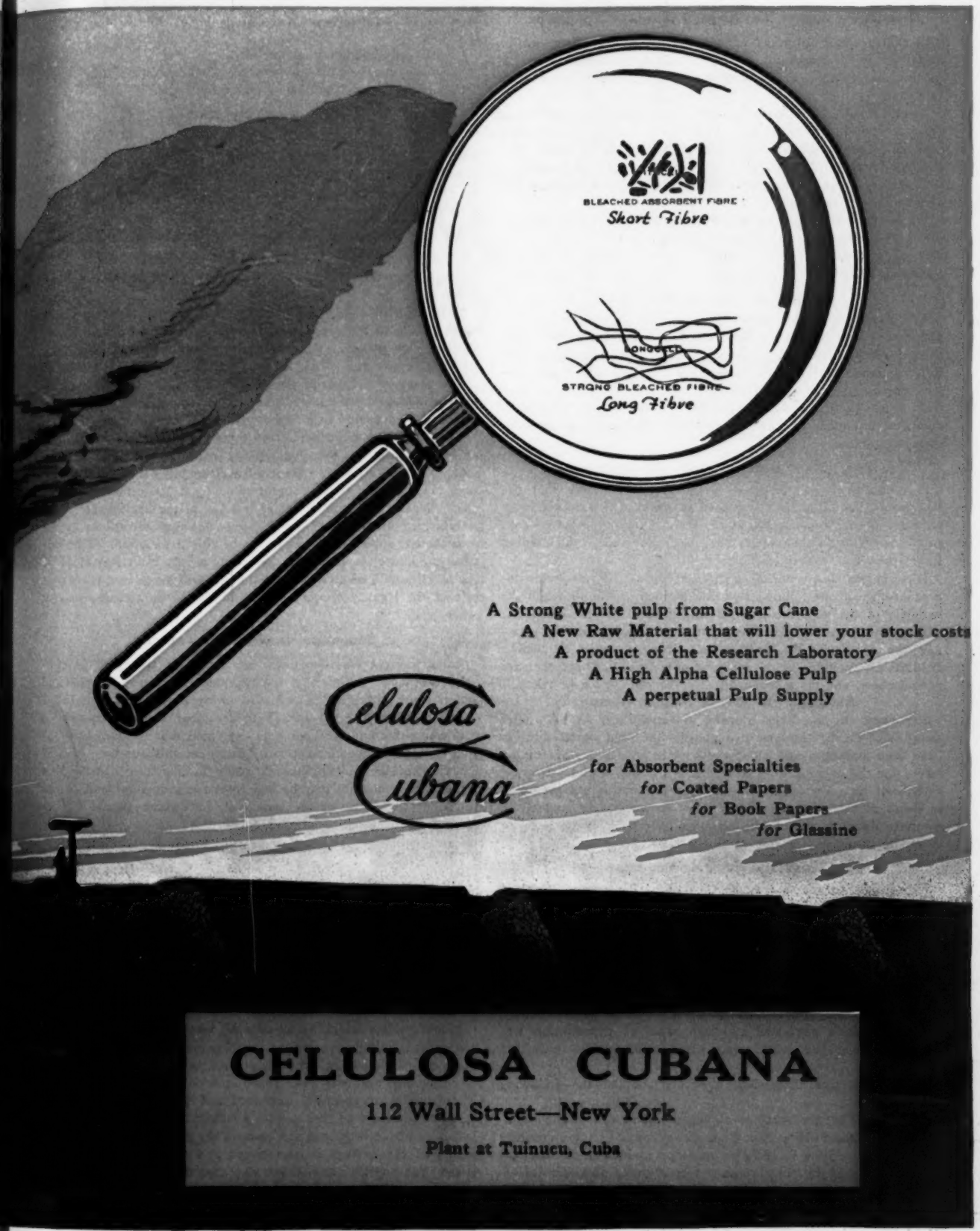
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Short Fibre
STRONG BLEACHED FIBRE
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A Strong White pulp from Sugar Cane
A New Raw Material that will lower your stock costs
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Economist's Report on "General Business Conditions

Chairman Hugh Strange, of the Statistical Commitee, introduced Dr. E. O. Merchant, economist, who submitted a report on the subject of "General Business Conditions and the Paperboard Industries."

In this report, Dr. Merchant referred to general business conditions, steel ingot production, automobile production, building contracts, freight car loadings, wholesale commodity prices, the trend of money rates, the crop situation, the election campaign, etc., and the effect of general business conditions upon the paperboard industries and the outlook for the industry.

The economist's remarks were supplemented by reference to charts depicting basic conditions in the paperboard industries, as well as other charts showing the trends in the more or less analogous industries. The economist's report was well received.

Folding Box Group Meeting

Vice-President Hinkle opened the meeting by referring to the situation now obtaining in the folding box industry. He made several constructive suggestions with regard to developing the exact situation and further consideration of this important subject will be given at the September meeting. The general discussion was participated in by practically every member in attendance and a number of interesting views were expressed by individual members.

Cooperation with Suit Box Manfacturers

Announcement was made by Vice-President Hinkle that the Executive Committee had reviewed certain correspondence with regard to closer cooperation on the part of the manufacturers of suit boxes, and that the subject had been referred to the Folding Box Group for further consideration.

It developed that some of the manufacturers of suit boxes are now enrolled in the Folding Box Group membership, although the majority of the manufacturers of this product are non-members.

It was the sense of the meeting that a cordial invitation to attend the meeting of the Folding Box Group, Chicago, September 19, 1928, be extended to the manufacturers of suit boxes that are not members, and the meeting directed that this action be taken.

Extending the Use of Folding Boxes

Reporting for the Sales Promotion Committee, A. W. Luhrs stated that during the past two months the field representatives have been making a special effort to promote the use of folding boxes for the packing of several different commodities. Because of lack of time, the report on sales promotion was not presented in detail at the meeting. These items, however, are covered in complete detail in the committee's printed report, which is being mailed to members.

Statistical-Accounting Subjects:

Reporting for the Statistical-Accounting Committee, Grafton Whiting, statistician, covered the following subjects:

1. Census of the Folding Box Industry.
2. Depreciation Survey.

Report was made that the recommendations of the Folding Box Group had been transmitted to the Internal Revenue Department, U. S. Treasury, and that advice had been received from the Treasury Department, indicating that for the most part, the Association's suggested standard rates of depreciation will be accepted, but that several minor items would have to be further considered.

After a further discussion, members adopted the following resolution:

RESOLVED, That the schedule of depreciation rates of the physical assets of the Folding Box Plants as submitted to the Treasury Department on June 9, 1928, be amended to include the changes as recommended by the Treasury Department, with the understanding that the Association may at a later date make further presentation to the Treasury Department should investigation develop that their proposals are not correct; and that the schedule as amended be prepared for publication in the form of a Treasury Decision.

3. Cost and Estimating Manual.

Progress report on the preparation of the Manual.

4. Folding Box Group Charts and Summaries.

Paperboard Group Meeting

The Paper Board Group Meeting, presided over by Vice-President E. R. Hankins, was well attended. The vice-president submitted a report in which he reviewed briefly items of interest to the group which had been considered at the Executive Committee Meeting, July 17th.

Bradford Mill Supply Company vs. Paperboard Industries Association et al.

Concerning the above, Vice-President Hankins reported as follows:

"We reported at the last meeting that the master's report in connection with the above case was favorable to our association. We are now pleased to report that the court has sustained the master's report and given the final decree, wholly favorable to the Paperboard Industries Association and the companies which were named as defendants to the suit. It is not believed that the case will be appealed to a higher court.

"Incidentally, the master's report goes into detail with respect to the activities of the Paperboard Industries Association. In short, the association has received a clean bill of health and we have every reason to be congratulated upon the outcome of the case. General Manager Browder testified at the hearing as to the activities of the association and the master was advised as to the constructive work being carried on by this association. This enabled the master to include in his report a very clear statement of our activities. The decision of the court will serve as a precedent in case the legality of our association should be attacked at any other place."

Committee on Waste Utilization

Announcement was made that the members appointed to consider the above subject had not accepted their appointments and that it would therefore be necessary to appoint a new committee.

The meeting directed that Vice-President Hankins appoint a new committee and the hope was expressed that the members appointed would give the necessary study to this subject. It was the view of the meeting that a study as above will show that appreciable economies may be had from the proper utilization and re-use of fibers, which are now lost, but which should be recovered and re-used.

Statistical-Accounting Subjects

At the direction of Chairman Strange, Grafton Whiting, statistician, reported in detail for the committee, specific mention being made of the following items:

1. Change in basis of statistical figures.
2. Census of paper board industry.
3. The depreciation study.
4. Charts and summaries.

Inspection Service

Vice-President Hankins announced that the Association, following action duly approved at the May meeting, has inaugurated a system of inspection, which involves the collecting and testing of corrugated and solid fiber boxes secured from shippers' stocks. These boxes are carefully examined and tested by the Association and a report of the results is furnished to the box user. In instances where the boxes fail to meet the certificate requirements, a copy of the findings is also mailed to the manufacturer of the boxes. He pointed out that the Paperboard Group which consists of the manufacturers of the board that is used in the boxes, is vitally interested in this general subject as, if the boxes fail to meet the specifications, the box manufacturer will look to the

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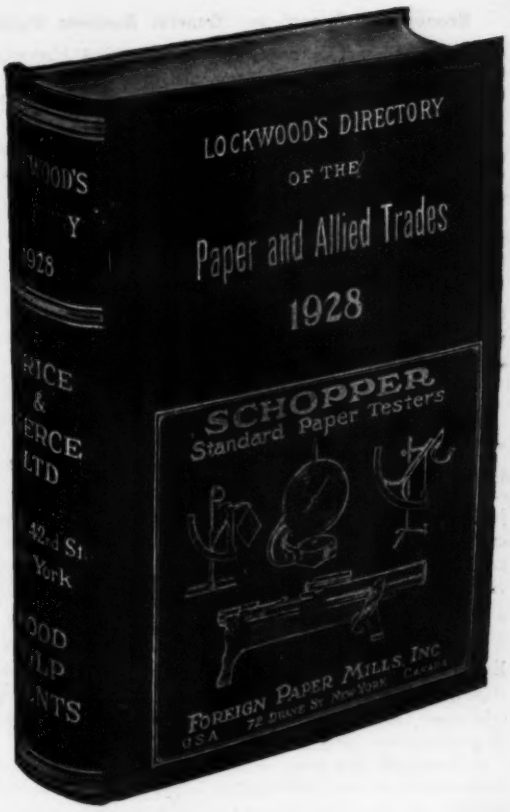

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Report was made that the recommendations of the Folding Box Group had been transmitted to the Internal Revenue Department, U. S. Treasury, and that advice had been received from the Treasury Department, indicating that for the most part, the Association's suggested standard rates of depreciation will be accepted, but that several minor items would have to be further considered.

After a further discussion, members adopted the following resolution:

RESOLVED, That the schedule of depreciation rates of the physical assets of the Folding Box Plants as submitted to the Treasury Department on June 9, 1928, be amended to include the changes as recommended by the Treasury Department, with the understanding that the Association may at a later date make further presentation to the Treasury Department should investigation develop that their proposals are not correct; and that the schedule as amended be prepared for publication in the form of a Treasury Decision.

3. Cost and Estimating Manual.

Progress report on the preparation of the Manual.

4. Folding Box Group Charts and Summaries.

Paperboard Group Meeting

The Paper Board Group Meeting, presided over by Vice-President E. R. Hankins, was well attended. The vice-president submitted a report in which he reviewed briefly items of interest to the group which had been considered at the Executive Committee Meeting, July 17th.

Bradford Mill Supply Company vs. Paperboard Industries Association et al.

Concerning the above, Vice-President Hankins reported as follows:

"We reported at the last meeting that the master's report in connection with the above case was favorable to our association. We are now pleased to report that the court has sustained the master's report and given the final decree, wholly favorable to the Paperboard Industries Association and the companies which were named as defendants to the suit. It is not believed that the case will be appealed to a higher court.

"Incidentally, the master's report goes into detail with respect to the activities of the Paperboard Industries Association. In short, the association has received a clean bill of health and we have every reason to be congratulated upon the outcome of the case. General Manager Browder testified at the hearing as to the activities of the association and the master was advised as to the constructive work being carried on by this association. This enabled the master to include in his report a very clear statement of our activities. The decision of the court will serve as a precedent in case the legality of our association should be attacked at any other place."

Committee on Waste Utilization

Announcement was made that the members appointed to consider the above subject had not accepted their appointments and that it would therefore be necessary to appoint a new committee.

The meeting directed that Vice-President Hankins appoint a new committee and the hope was expressed that the members appointed would give the necessary study to this subject. It was the view of the meeting that a study as above will show that appreciable economies may be had from the proper utilization and re-use of fibers, which are now lost, but which should be recovered and re-used.

Statistical-Accounting Subjects

At the direction of Chairman Strange, Grafton Whiting, statistician, reported in detail for the committee, specific mention being made of the following items:

1. Change in basis of statistical figures.
2. Census of paper board industry.
3. The depreciation study.
4. Charts and summaries.

Inspection Service

Vice-President Hankins announced that the Association, following action duly approved at the May meeting, has inaugurated a system of inspection, which involves the collecting and testing of corrugated and solid fiber boxes secured from shippers' stocks. These boxes are carefully examined and tested by the Association and a report of the results is furnished to the box user. In instances where the boxes fail to meet the certificate requirements, a copy of the findings is also mailed to the manufacturer of the boxes. He pointed out that the Paperboard Group which consists of the manufacturers of the board that is used in the boxes, is vitally interested in this general subject as, if the boxes fail to meet the specifications, the box manufacturer will look to the

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Trade Mark Department

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The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

REGAL, No. 250,758. The Paper Supply Company, Inc., Minneapolis, Minn. For school writing books and tablets.

SOUNDEX QUICK AS A FLASH, No. 255,821. Rand Kardex Service Corporation, Tonawanda, N. Y. or cards and Forms for indexes, indexes consisting of blank or partially-printed forms or cards, index guide cards, and separator cards of the type used for phonetic indexes, and frames and holders for index cards.

MEX-CILIAN, No. 266,807. Hanover Cordage Company, Hanover, Pa. For white-fibre twine.

SECOLO XILL, No. 266,860. Japan Paper Company, New York City. For Italian hand-made and handlaid writing and printing paper.

CORNSTALK, No. 265,525. Cornstalk Products Company, Inc., New York City. For print, wrapping, writting, book, and tissue paper.

CELOWAX, No. 266,696. The Warren Manufacturing Company, New York City. For waxed wrapping paper and waxed paper for lining cartons and boxes.

SARACEN, No. 266,349. The Beveridge Paper Company, Indianapoils, Ind. For cover paper, Bristol, and cardboard.

LOX-IN, No. 263,629. The White Tar Company of New Jersey, Kearny, N. J. For garment bags of paper or cloth.

BLUE MILL, No. 263,172. Thomas J. Mitchell, Utica, N. Y. For writing tablets, composition books, note books, and writing papers.

IRIS WARE, No. 265, 971. Leon C. Laub, New York, N. Y. For articles made of paper with a glazed process finish, plates, candy boxes, boudoir boxes, flowerpots, trays, bowls, etc.

ARBOR, No. 266,714. Capital Paper Company, Indianapolis, Ind. For toilet paper.

PEN HI, No. 266,949. J. C. Penney Company, Wilmington, Del. For pencil tablets, composition books, note books, spelling tablets, music tablets, and loose-leaf binders.

SANITEX, No. 267,900. Alvin C. Ostermeyer, Indianapolis, Ind. For toilet paper and paper towels.

E-Z, No. 268,077. Canode Ink Company, Inc., Chicago. For stencils and stencil paper.

FRASA BINDER, No. 264,061. F. S. Webster Company, Boston, Mass. For carbon papers bound in time-saving binders.

PICTURE OF A COLONIAL DAME, No. 264,543. Tileston & Hollingsworth Company, Boston, Mass. For writing paper, bond paper, Bible paper, index bristol, cover paper, ledger paper, text paper, antique finish paper, etc.

STONCO, No. 266,689. Stone and Forsyth Company, Boston, Mass. For twines and ropes.

SPEEDEE, No. 264,717. Curtis 1000, Inc., St. Paul, Minn. For envelopes.

"P. D. Q.," No. 264,295. Gaw-O'Hara Envelope Company, Chicago, Ill. For envelopes, letterheads, bill heads, blank books, blotters, folders, and portfolios.

GIFT FANTASIE CORD—No. 265,205. Maurice P. Geraghty, Chicago. For articles consisting of a pressed paper tube around which is wound decorative wrapping cord.

VANITY—No. 265,387. A Kickbusch Grocery Company, Wausau, Wis. For toilet paper and writing tablets.

HANG-IN—No. 263,628. The White Tar Company of New Jersey, Inc., Kearny, N. J. For garment bags of paper or cloth.

RAWHIDE KRAFT and rep. of a hide—No. 265,413. Sheridan-

SUPER-KRAFT—No. 265,996. Superior Paper Products Company, Clayton Paper Company, St. Joseph, Mo. For paper bags.

Carnegie, Pa. For corrugated paper shipping containers.

ROYAL SATIN No. 265,424. The Butterfield-Barry Company, New York City. For paperboard used for boxes, posters, and advertising novelties.

THE PRESIDENT No. 265,857. The Rytex Company, Indianapolis, Ind. For writing paper and envelopes.

COMMANDER No. 266,417. Crown Williamette Paper Company, San Francisco, Cal. For paper towels.

DAN-D-FOLD No. 261,609. Daniels Manufacturing Company, Rhinelander, Wis. For paper napkins.

NIBROC WEB No. 263,254. Brown Company, Portland, Me. For paper suitable for use in making artificial leather.

Boston Paper Market Unchanged

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., August 13, 1928.—Continuing in the summer tenor of its way, the wholesale paper market is practically unchanged. Little, if any, fluctuation characterized the market, so that prices are practically the same. Bonds and ledgers are steady and all grades are fairly quiet, but the prospect is favorable for future business. Kraft is in a similar condition to that of fine paper. There are a fair amount of orders for box board, but it is expected that the volume will increase before the end of the month.

Old papers and rags are moderately quiet owing to vacations and the usual "slow-down" during the summer, but maintained firmness. Mixed papers are strong. In bagging, foreign manila rope is understood to be showing considerable improvement. Values have appreciated, with some quoting foreign manila rope at 3.25 to 3.50 and others at 3.37½ to 3.62½. The former range was 3.00 to 3.25. Domestic rope has also risen in value and is quotable at 3.50 to 3.75, compared with a previous range of 3.25 to 3.50. Foreign roofing rags are rather firm, in spite of the fact that roofing mills are endeavoring to bear the market. The European market continues strong, showing a decided upward tendency.

New Packet Service Organized

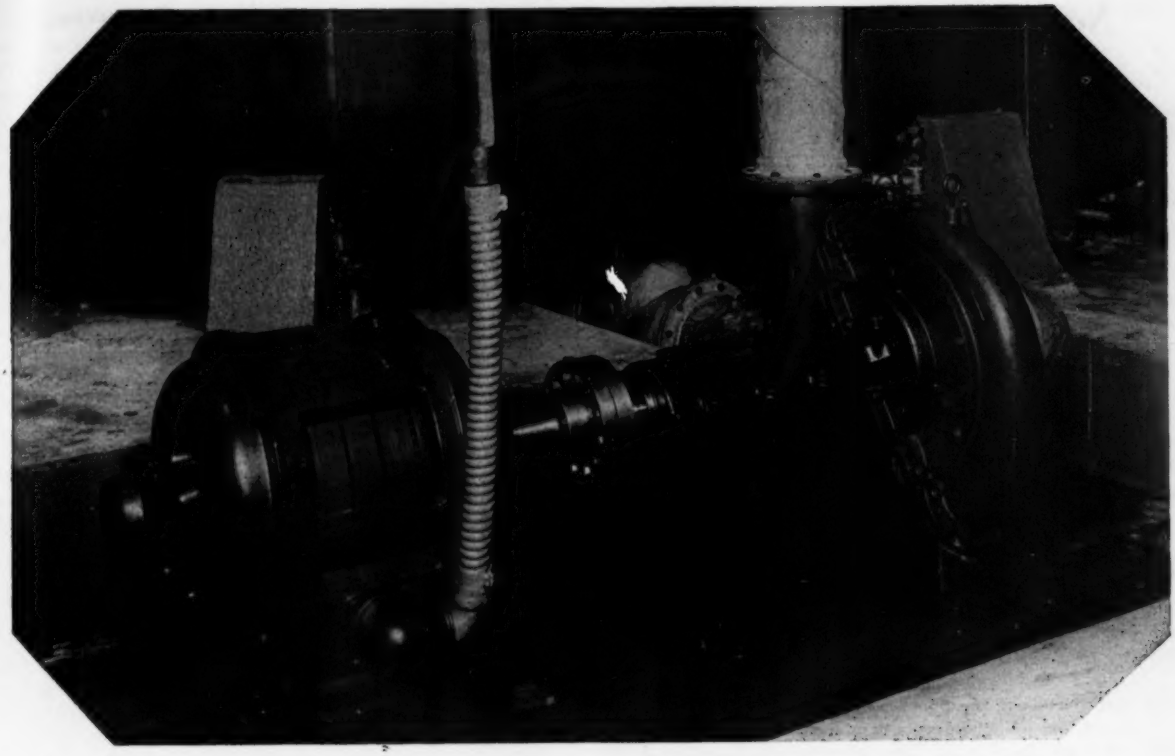
[FROM OUR REGULAR CORRESPONDENT]

TROY, N. Y., August, 14, 1928—A new packet service will be available to pulp and paper manufacturers in the Upper Hudson district with the beginning of operations this week of a new line between this city and St. Johns, Canada. The new service is operated by the Matton Steamboat Company of Cohoes and will serve all points in the Champlain Canal, Lake Champlain and the Richilieu River. One round trip will be made each week. The first trip was made last week when a tow of eight barges was taken north. The barges carried mixed freight, part of it destined for pulp and paper mills along the route.

It is planned to have three tugs in service. According to officials of the operating company the prospects for the new line are bright and much business is expected from shippers in the United States and the Canadian provinces within a short time.

Low Bidders for Envelope Contract

Against the estimate of a large deficit in the operation of the Post Office Department this year a saving is indicated for the future in the item of stamped envelopes. Bids for a four year supply were opened in Washington, Tuesday afternoon of last week and showed a prospective saving of about $5,000,000. These stamped envelopes now cost the Government about $20,000,000 and the new price is in the neighborhood of $15,000,000. The low bidder is the International Envelope Corporation, which is controlled by International Paper Company of New York. The Standard Envelope Manufacturing Company, of Cleveland, Ohio, is said to have an interest. The present contractor, the Middle West Supply Company, of Dayton, Ohio, also bid. As a result of this competition the saving will be about $1,250,000 annually. The bid of the International Corporation was about $520,000 below the Middle West Company's bid.



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New York Trade Jottings

Carlo Moriondi, eminent Italian cellulose and rayon expert, will return to Italy from New York, after having spent several months in the United States. He sails on July 25.

* * *

Dr. Maurice Brot, professor in the School of Paper Making, Grenoble, France, is visiting the United States and plans to visit mills in New England and New York during the next few weeks.

* * *

Gifford K. Simonds has been elected a director of the International Paper Company, New York. Mr. Simonds is general manager of the Simonds Saw and Steel Manufacturing Company, of Fitchburg, Mass.

* * *

The Prudential Paper Company, Inc., wholesalers and mill distributors of paper, of 154 Nassau street, New York, announces that Isidore A. Blanch, M.A., secretary-treasurer of the company, has been duly admitted to the Bar, as an attorney and counsellor-at-law.

* * *

The Dexter Sulphite Pulp and Paper Company, Mitscherlich sulphite and paper specialists, of Dexter, N. Y., announces the appointment of Julius Gold as exclusive selling agent for the Metropolitan District and vicinity. All correspondence and inquiries should be addressed to Mr. Gold at the New York office, 55 West 42nd street. Telephone, Longacre 3451.

* * *

All correspondence of the General Electric Company relating to obtaining and filling orders, where such will save time, henceforth will be sent by air mail. The order, recently issued by W. W. Trench, secretary, was in view of the facilities now offered by the air mail to speed up communication. With its 78 district and local offices, and its many factories and warehouses distributed throughout the country, the General Electric management expects the utilization of the air mail service to make for better service to customers.

* * *

Crestwood, on the Harlem Division of the New York Central Railroad, will be the scene of the second outing for the Summer of the New York Division of the Salesmen's Association of the Paper Industry, which is scheduled for Tuesday, August 28, at the Leewood Golf Club. As in the case of the July outing, arrangements have been made for both morning and afternoon play. Morning play will be for practice only, but for the 18 holes of afternoon play there will be prizes for low net score, low gross score and blind bogey. D. A. Crocker, secretary of the association, will be pleased to give more detailed information to anyone desiring to take part in the event.

Japan Increases Paper Production

WASHINGTON, D. C., August 15, 1928.—General business conditions in the Japanese paper industry are quiet with prices generally holding firm, except for a lowering of pulpwood prices following reduction in freight tariffs, according to a report just received from Trade Commissioner Paul P. Steintorf, at Tokyo.

It is estimated that paper producing during the second quarter of this year increased from 5 to 8 per cent compared with the preceding three months, when the output totaled 149,705 short tons. This increase is attributed to the demand to replace depleted stocks following the abnormally heavy consumption during the first quarter when the general elections took place. A further contributing factor is that dealers are anticipating their requirements for the Imperial Coronation. Pulp production during the second quarter is expected to show a slight, but purely seasonal decline. The output during the first three months of the current year is reported by the Japanese Paper Manufacturers Association to have reached 113,467 tons.

Evening Graduate Courses in Engineering

Opportunity is now afforded to engineers, chemists and other technicians located in the metropolitan district of New York City to pursue graduate study during the evening hours. The Polytechnic Institute of Brooklyn, which for twenty-five years has given undergraduate courses in its Evening Session leading to bachelor's and engineer's degrees, will further parallel its regular day curricula by offering this fall four graduate courses in the evening which lead to the master's degree. These courses permit properly qualified graduates of universities and technical colleges, who are engaged during business hours, to continue their studies in chemistry and engineering. The degree of Master of Science in Chemistry, or of Master of Civil, Electrical or Mechanical Engineering is awarded upon the completion of thirty semester-hours of advanced study and upon the submission of a satisfactory thesis. The individual subjects of instruction may also be taken by graduates without reference to candidacy for a degree.

Some of the subjects of instruction to be given this fall are: Engineering Economics, Advanced Physical Chemistry, Advanced Organic Analysis, Drying, Evaporation and Distillation, Water Power Engineering, Advanced Structures, Electrical Oscillations, Electromagnetic Theory, Heat Power Engineering, Metallography and Heat Treatment, Oil and Gas Power Engineering, Differential Equations, Advanced Mechanics, Vector Analysis, Modern Physics, Advanced General Physics, Kinetic Theory of Gases, and Quantum Theory of Radiation.

Graduate classes will open on September 24, and registration may be made on and after September 10 by application to the Dean. The Polytechnic Institute is located on Livingston and Court streets, immediately adjoining Borough Hall in Brooklyn.

Paper Mill Employment

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 15, 1928.—There was an increase in employment in both the paper and pulp and paper box industries in June as compared with May but a slight decrease in payrolls in June in the paper and pulp industry according to the Bureau of Labor Statistics, Department of Labor.

Reports were received from 214 paper and pulp mills which gave their May employment at 56,805 increasing in June to 57,085, an increase of 0.5 per cent. The payrolls in these same mills, on the other hand, decreased from $1,521,689 in May to $1,516,423 in June, a decrease of 0.3 per cent.

The Bureau also received reports from 188 paper box factories which gave their May employment at 19,147, increasing in June to 19,236, an increase of 0.5 per cent. The payrolls in these factories also increased from $429,589 in May to $444,090 in June, an increase of 3.4 per cent.

Finland Pulp and Paper Exports Increase

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 15, 1928.—Exports of pulp and paper from Finland during the first six months of this year were valued at $21,878,640, compared with $20,160,000 during the corresponding period of last year. With the exception of writing paper all groups showed an increase over last year. Shipments comprised chiefly 216,956 tons of chemical pulp, 58,144 tons of ground wood, 20,725 tons paper board, etc.

New Paper Mill for Chili

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 15, 1928.—So far as can be learned the persons interested in the construction of the proposed paper mill at Trumao, Chile, are continuing their efforts to make the project a reality according to a report to the Department of Commerce.

According to the data obtained recently the power for this undertaking will be generated at Pilmaiquen Falls, which are capable of supplying 30,000 horsepower.

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When Gilles and Jean Gobelins opened their dye works in Paris in 1456, they probably did not dream of the greatness that would come to their name. For it was a generation or two afterwards that their family branched out into the making of tapestries, and it was 200 years later when the fame of Gobelin art led the French government to subsidize and operate the business.

In their particular field of the graphic arts, the finer Gobelin tapestries have never been rivaled. For they have put into fabric the events of history, characteristics of times and persons, and the elusive colors that nature uses sparingly in sky or shrub.

Gobelin tapestries are prized because they are beautiful and rare. The first quality is still a virtue with us moderns. The second—a vice. For we are prodigal of beauty and, finding it, scatter it to the four corners of the earth for the enjoyment and enlightenment of all men.

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A NEW CANADIAN PAPER RECORD

A report on the pulp and paper industry just issued by the Dominion Bureau of Statistics shows that all records for gross value of manufacture were broken in 1927 by the Canadian pulp and paper industry, when the figures of $219,329,753 were reached, while the gross contribution toward a favorable balance of trade resulting from the work of the pulp and paper mills in 1927 was $179,459,362.

The total value of pulpwood produced in Canada's forests shows an increase of 3.2 per cent. The total value of pulp manufactured decreased by 0.6 per cent., and the total value of paper produced increased by 6.4 per cent. If the three forms of industrial activity covered by this report are considered as one, then the net total value of production for the industry as a whole might be considered as the sum of the pulpwood exported, pulp exported and paper manufactured. This total for 1927 was $231,144,294, an increase of 3.0 per cent, over the figures for 1926. These totals for the last five years are as follows: 1923, $188,642,109; 1924, $187,174,703; 1925, $202,781,017; 1926, $224,421,230; 1927, $231,144,294. The maximum, which was reached in 1920, owing to the high prices prevailing at that time, was followed by a decided decrease in 1921, but 1922 and 1923 showed increases. There was a slight decrease in 1924, due to a decrease in pulp manufacture, but there were increases in all branches of the industry in 1925 and 1926. The figure for 1927 is the highest in the history of the industry.

If only the manufactured aspect of the industry is to be considered, the value of production should be considered as the sum of the values of pulp made for sale in Canada, pulp made for export, and paper manufactured, excluding pulpwood and the pulp made in the combined pulp and paper mills for their own use in making paper. This total for 1927 was $219,329,753, as compared to $215,370,274 for 1926, an increase of 1.8 per cent.

The gross value of the manufactured products of the industry in the last five years are as follows: 1923, $184,414,675; 1924, $179,259,504; 1925, $193,092,937; 1926, $215,370,274; 1927, $219,329,753.

There were 113 mills in operation in Canada in 1927, as compared to 115 in 1926. Of these mills 41 made pulp only, 42 were combined pulp and paper mills, and 30 made paper only. Two pulp mills which had operated in 1926 did not operate in 1927. Two other mills began to manufacture paper as well as pulp during the year. The new pulp mill and three new pulp and paper mills came into operation during 1927. One mill which manufactured paper only in 1926 began to manufacture some of its own pulp in 1927, and two new paper mills began to operate during the year. Six coating mills which were included in the 1926 report were transferred to another section of the census of industry, as they are converting plants which do not manufacture paper but merely subject it to a coating or treating process. Disregarding the transfer of these mills from the industry there was a net loss of two pulp mills, and a gain of six combined pulp and paper mills and one mill making paper only, or a gain of five mills for the industry as a whole. The 83 mills manufacturing pulp produced 3,278,978 tons valued at $114,442,541, as compared to 3,229,791 tons in 1926, valued at $115,154,199, representing an increase of 1.5 per cent. in quality and a decrease of 0.6 per cent, in value. Of the total for 1927 the combined pulp and paper mills produced 2,262,542 tons, valued at $63,558,345, for their own use in paper making. A total of 114,476 tons, valued at $5,925,550, were made for sale in Canada, and 900,324 tons valued at $44,958,655 were made for export.

The 72 mills making paper in 1927 produced 2,468,691 tons of paper valued at $168,445,548, as compared to 2,266,143 tons in 1926, valued at $158,277,078, an increase of 8.9 per cent. in quantity and 6.4 per cent. in value.

News print paper made up 84.4 per cent of the total reported tonnage of paper manufactured in 1927. The news print amounted to 2,082,830 tons, valued at $132,286,729, as compared to 1,889,208 tons in 1926, valued at $121,064,946 an increase of 10.2 per cent in tonnage and 9.3 per cent in total value. Under the heading of news print in Canada are included news print in rolls and sheets for printing, hangings and poster paper. The reported news print production in the United States during the calendar year, 1927, was 1,486,000 tons, but this figure does not include hangings or poster paper. When these two classes are deducted from the production in Canada during the calendar year, 1927, the figure for comparison is 2,075,548 tons, showing that the Canadian production of this commodity is almost six hundred thousand tons greater than that of the United States.

The total capital invested in the manufacturing part of the industry in 1927 was $579,833,552, as compared to $501,184,714 for 1926.

THE TAPPI FALL MEETING

In these days of keen competition the American business man is looking more and more toward the technical man to lower his costs, improve his product, develop new markets, and thereby make his business expand and grow more profitable. Twenty years ago it was almost impossible to gather a group of such competitors together for a consideration of their mutual problems but today progressive manufacturers realize that they usually have more to learn than they have to give.

The pulp and paper industry is singularly fortunate in having one of the most active and best organized bodies of technical men in the country. The Technical Association of the Pulp and Paper Industry is recognized throughout the papermaking world as a group of men primarily interested in the promotion of this great industry through the practical application of sound scientific, engineering and economic principles. There can be no question but that these men have done much to keep their mills abreast with, or even in advance of, the times.

Twice each year TAPPI convenes for discussion and exchange of information. The annual meeting in February is held in

conjunction with the American Paper and Pulp Association in New York and so has a considerable amount of competition. The fall meeting in September is one for renewal of acquaintanceships, for mill visitations, for papers and informal discussions. It is not overstating the case to say that these "corridor conversations" and interchanges of ideas are often as valuable as the more formal part of the meetings.

This fall TAPPI meets in Wausau, Wis., a city in the very center of a state which ranks third in pulp production in the country and which manufactures daily three thousand tons of various grades of paper. The technical program is to be of unusual interest, there will be a Past Presidents' Night, the first two TAPPI medals will be presented, and finally, an entertainment program for both the men and women will round this out into a well balanced meeting.

Managers and executives of the mills should make it a point to have their technical men in attendance at this gathering. They will come back with renewed interest and filled with new ideas, any one of which might easily pay for the cost of the whole trip.

Will Have Over a Million Horsepower

The International Paper and Power Company, the new company which is to be formed as a holding company for the properties of International Paper Company, and which is expected to hold a very large majority of the common stock of New England Power Association, will have developed and under construction in the combined companies, hydro-electric developments of 1,032,600 hp., and hydraulic power plants of 110,000 horsepower, making a total of 1,142,600 hp. This total is capable of being increased through further development and through the utilization of undeveloped sites to a grand total of 2,600,000 hp.

Of this power, International Paper Company has 803,100 hp. developed and under construction in hydro-electric plants in the United States, Canada and Newfoundland, and 110,000 hp. in hydraulic power plants in its pulp and paper mills, and New England Power Association has 229,500 horsepower developed and under construction in hydro-electric plants in New England on the Connecticut, Deerfield, and other rivers.

In addition, New England Power Association has 382,000 installed electric horsepower of central station steam plants. This amount added to the waterpower resources indicated above gives a present total capacity of 1,500,000 hp. and a prospective capacity of 3,000,000 hp.

Ticonderoga Paper Co. Makes Improvements

[FROM OUR REGULAR CORRESPONDENT]

TICONDEROGA, N. Y., August 14, 1928—The Ticonderoga Pulp and Paper Company is making improvements at the plant in East Exchange street. The company has purchased property adjoining the offiice and mill and has started a force of men at work demolishing the building and clearing the site. The building being razed is one of the oldest landmarks of the village. It is understood that the site will be reserved by the company for future expansion. For the present after the ground is cleared it will be improved and landscaped adding considerably to the attractiveness of the company's property.

New Hammermill Agents Appointed

ERIE, Pa., August 14, 1928.—The Hammermill Paper Company announces the appointment of the John Leslie Paper Company, Great Falls, Mont., a branch of the John Leslie Paper Company of Minneapolis, Minn., as a Hammermill agent. The Hammermill Company also announces the appointment of the Daka Paper Company of Erie, Pa., as a Hammermill agent.

Investigate News Print Freight Rates

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., August 14, 1928.—As a result of numerous complaints from Northern New York paper mills regarding rates on news print the Interstate Commerce Commission has ordered a sweeping investigation of freight rates on news print. Nineteen new complaints have been filed recently by the St. Regis Paper Company, International Paper Company, and others. All nineteen cases will be heard at once. The first hearing was scheduled in Washington yesterday. Joseph A. Quinlan, traffic manager of the St. Regis Paper Company and affiliated concerns, attended the hearing yesterday.

It has been rumored for some time that the commission intended to make a detailed investigation of the news print rates. The rates to be investigated are on news print paper, both import and domestic to points in official and southern classification territories. A section of the commission's order explaining the investigation follows:

"The commission having under consideration a petition filed by several protestants on news print paper from points in Ontario and Quebec, Canada, to Nashville, Tenn., and concurred in by southern carriers, for a general investigation of the rates on news print paper to destinations in southern territories of origin, and several complaints having been filed assailing the measure and repationship of rates on newsprint paper from various origins to destinations in both southern and official classification territories:

"It is ordered that the commission upon its own motion make an investigation into the reasonableness and propriety of the rates, rules and regulations for the transportation of news print paper, in carloads, over the rail and rail-and-water routes from producing and shipping points in official classification territory, Wisconsin, Minnesota, Michigan and Canada (in so far as the transportation takes place within the United States) to destinations in official and southern classification territories, including west bank Mississippi River crossings, and into rates, rules and regulations for transportation of imported news print paper from seaports to such destinations with a view of making such findings and orders in the premises and prescribing such just, reasonable and otherwise lawful rates as the facts and circumstances may warrant.

"It is further ordered that all railroads and common carriers by water subject to our jurisdiction, participating in the transportation above referred to, be, and they are hereby made respondents in the proceeding, and that this order may be served upon each of said respondents."

The nineteen complaints which now become one in the investigation include several brought by the International Paper Company, one by the Publishers' Association of New York City, two by the St. Regis Paper Company, and a number of other important cases.

The St. Regis Company cases involved include St. Regis Paper Company, et al., against the Alabama Great Southern Railroad Company, et al., and the St. Regis Paper Company, et al., against Baltimore & Ohio Railroad Company, et al.

The complainants believe that the investigation will be the most complete of its kind ever carried on by the commission and many changes in rates, important to the paper industry of Northern New York are expected to result.

Whiting Paper Co. Prepares Plant No. 3

HOLYOKE, Mass., August 14, 1928.—Edgar A. Tolman of Woonsocket, R. I., has been secured as chief engineer for the Whiting No. 3 paper mill, the former plant of the Lyman Mills and is already at work preparing the plant for the machinery. All the machinery for the two 112 inch Fourdriniers and supplementary machines have arrived and foundations are being laid for their erection. It is now expected that the new plant will be in operation the last of next month or early in October. The plant was not able to be occupied until February last on account of the cotton machinery being largely in place; but this has been almost entirely removed and the necessary alterations and changes made.

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

Rags and their Preparation for Paper Making

By R. H. Clapperton [1]

The rags in general use may be divided into two classes:—new cuttings, and old used rags.

New cuttings are trimmings and cuttings from textile factories, and they are the waste from the cutting out of shirts, shoes, canvas goods, and many other articles of clothing, etc. These new cuttings may be divided again into linen and cotton, and the following is a list of some of the various qualities generally met with.

New white linen (damask) cuttings, obtained from factories making table cloths and fine linen goods. This is about the most expensive material used in paper manufacture, and it is used only for the very best thin bank-note papers, which have to combine great strength and durability with lightness in weight. Even in the manufacture of these papers, the linen cuttings are seldom used alone nowadays, but are blended with other cotton cuttings. A Bank of England £5 note is an example of a paper made from this material.

New white cottons are also very expensive raw material, and almost as valuable as linen, except that they will not produce so strong or firm handling paper. They are treated in much the same way as the linens. Often new white cuttings consist of a mixture of linen and cotton.

New unbleached linen is received by the paper maker in the form of linen threads, linen canvas cuttings, and brown linen cuttings.

These can be made to produce papers of great strength, but in order to obtain a good white color with them, they require very drastic treatment with chemicals, and for this reason they are much cheaper in first cost.

This material is first overlooked and cut up by hand, if necessary. It is then dusted and cut by machine, and if it is examined carefully it will be seen that it contains large quantities of shiny yellow or brown shive, which is actually lignin, closely attached to the threads. These impurities have to be thoroughly destroyed before the fibers are made into paper, or they will show in the finished sheet as small brown specks, and will give cause for complaint. They are removed by drastic boiling with caustic soda, under pressure for several hours. When the rags have been boiled and washed with hot water, they will be found to be much softer, and the shive will be softer and lighter in color.

New unbleached cottons, called "new grays" or "yellow cottons" are the waste from factories using unbleached calico, and they vary greatly in quality and value. The best "broad cuttings" are usually excellent material, containing little or no loading or starch, and being free from shive and dirt. They are often nearly as expensive as new white cuttings. On the other hand, these unbleached cuttings may consist of shoe cuttings and linings, from canvas and leather shoe factories. While some of this material is excellent, a great deal of it is coarsely woven and full of loading and size. The loading in some cases is as high as 60 per cent of the weight of rags.

New lace curtain cuttings are a valuable material, being strong, clean, and easily prepared. The chief drawback to their use is the amount of loading and starch which they may contain, and the hard knots of thread which must be carefully broken up.

New light prints are the cuttings from shirt and dress factories, and at one time they were an expensive and important raw material for the better grades of rag papers. They are, however, becoming increasingly risky as paper making material, by reason of the extremely fast dyes being used to color them. In fact, some of the textile manufacturers are so sure of the fastness of the dyes that they offer to replace any shirt which shows signs of fading, by a new one. For this reason, these rags are becoming less popular, as several of the colors simply will not boil or bleach out by any method which will leave a sufficiently strong half-stuff; and it only requires a very small proportion of fast dyed rag to spoil a whole boiling.

Old used rags.—These rags constitute by far the greatest bulk of material used for rag papers.

In order of quality *clean white linens and cottons* come first.

No. 1 Linens consist of such articles of domestic use as table cloths, pillow cases, sheets, handkerchiefs, and clothing of all kinds. They are usually only fragments of the original article, and are fairly clean and free from impurities.

No. 1 Fines or *Best Fines* consist usually of a mixture of linen and cotton. They are always white and clean and of fairly good strength, that is, they are not absolutely worn out. They consist of much the same classes of articles of domestic use as the No. 1 Linens and often include collars and cuffs, white shirts, etc. When of good quality they are heavy rags and contain many large pieces and few strips. They must be overlooked for buttons, fasteners and elastic, and they are usually cut up by hand, prior to being put through the chopper.

They are boiled with a very little caustic soda, say 1 per cent, or a little soda ash is often sufficient. The pressure used need not be high and the boiling need only last for three or four hours at most. They require very little bleach and give a beautifully pure and clean half stuff, which can be beaten off very quickly without getting too wet.

Outshots and Second Fines are the same as the previous quality, but are not so clean, or so large in size, and are usually more

[1] Yorkshire Paper Mills, Ltd., Barnsley, England.

worn out. They are, in fact, thrown out by the rag sorters when grading for best fines. They need to be carefully overhauled for buttons and fasteners, elastic and "dress preservers" which contain hidden rubber or solution. They often contain a great many strips of clothing which have rows of buttons and minute metal fasteners attached.

Seconds

There can surely be no class of raw material used by any manufacturer which varies so much in quality and price as "seconds." All rag merchants sort and pack them in vast quantities, but no two merchants sort to the same standard, and for this reason the task of the rag sorting department of the mill is made extremely difficult.

It is impossible to give even a general definition of seconds to cover the whole of the packing of rags sold as such. Suffice it to say that they are all supposed to be derived from cotton, and they consist of clothing of all kinds, from tropical suits to imitation woolen underclothing, and from bed-ticking to dishcloths. Every imaginable article of textile manufacture is included among them, and in color they range from one end of the spectrum to the other with the addidtion of black and white. So much for the rags themselves.

There is only one basis on which these rags may be bought with satisfaction, and that is on a pre-arranged standard of percentage of mulch, any excess over the agreed maximum percentage being debited to the seller, or returned to him after the parcel has been ovrhauled.

Seconds are always divided into several grades, such as country seconds which are the largest and best, selected seconds, which are usually fairly clean and free from dark colors, and London seconds, which are invariably dirty, "strippy," and generally poor, worn out and often actually rotten.

In judging seconds, it is quite useless to depend on a post sample; at least a ton must be bought and carefully sorted before any real estimate can be made of their value.

With seconds, the amount of caustic soda and the length of boiling varies greatly, and in order to keep this regular, or within reasonable limits, the rags must be sorted to a uniform standard in the rag loft, and this should be regularly checked. If insufficient caustic, or too short boiling is given, the fact will soon reveal itself in the breakers, as the bleaching will require to be more drastic and some of the colors will be difficult to destroy.

Mention must be made of the several grades of continental rags which find their way in large quantities into the stores of the rag merchants of this country, and which are sometimes used to "adulterate" the home-produced article.

These consist for the most part of white cottons of several grades, which correspond roughly in order of precedence to English second fines, outshots, and white seconds. They are generally less clean, less consistent in quality, less strong and they invariably contain more rubber than the English grades, and they are consequently less expensive *in first cost.*

Continental white linen rags are, however, of great value, and form an important raw material. They are composed chiefly of homespun clothing of a gray color, always well worn and varying in coarseness of texture from rough "sacking" to a fine linen cloth.

The chief trouble encountered with these rags is shive or the outer bark of the flax plant, which has not been properly removed in the retting process. The presence of a large quantity of this reduces the value of the rags so far as strength is concerned—and it is for strength that they are used—as it means more caustic soda and more prolonged boiling and bleaching than would otherwise be required.

Old Strong Rags.—These consist of linen and cotton canvas in various forms, and the consignments usually contain a mixture of each.

Linen sail cloths from the sea ports are usually in large and often unwieldy pieces, difficult for the women to cut up into strips. They are very hard, contain many eyes, often lined with metal rings, are covered with tar, pitch and paint, and have hard edges bound tightly with tarred string. The contraries consist chiefly of those things mentioned above, which have to be cut out.

Linen canvas consists of a mixture of all kinds of linen from post office bags to tarpaulins and sailors' hammocks. It is usually greasy and contains varying amounts of shive, to remove which it requires a large percentage of caustic soda and prolonged boiling. It gives a "greasy" and easily fibrillated half-stuff, which cannot be bleached to such a white color as cotton canvas.

Cotton canvas is packed in various grades from No. 1 downwards. The best grades are white, clean and free from contraries. They do not require such severe treatment as linen canvas, and they produce a pure and white half stuff, which gives hardness and strength to the paper. They contain a good percentage of fairly new canvas. The lower grades contain all manner of colored pieces from "Willesden" green to brown tanned, and they are always dirty, covered with paint, soot, tar and grease. They contain metal hooks and eyes, buckles and rings.

Boiling—Washing—Bleaching

After the rags have been received into the mill they are carefully examined to see that they are up to the sample as regards color and quality, in order that the attention of the supplier may be called should the delivery appear to be below the standard. A few bags or bales are opened and thus a general impression of the quality of the consignment is obtained. Should the rags be below the standard of the sample, they are left on one side until the supplier has been communicated with, and given an opportunity of inspecting them. If the rags are all right they are put into stock ready for use.

Before the rags pass into the rag loft to be overlooked, they are passed through a conical duster to remove grit, dust and any loose dirt, buttons, etc. If this method is adopted it makes the task of the women overhaulers much more pleasant and the rag loft is also rendered more free from dust.

The task of the rag sorter requires a great deal of experience and skill, as the rags often have to be graded into one or two, or even more grades, and also contraries in the forms of silks, wool, etc., have to be thrown out. It is also imperative that all rubber, whether in the form of elastic solution, or insertion, should be carefully thrown out, as it is, without doubt, the worst enemy of the papermaker, and it is amazing to see the different ways in which rubber in one form or another is used in clothing, and how it is concealed.

When the sorting has been done the rags are ready to be cut up into small pieces about four inches square, or size suitable for boiling and breaking, and this is now generally done by a rag chopping machine, which is very quick and efficient.

Rag Boiling.—Mr. Clapperton then dealt with the conditions necessary for the efficient treatment of the rags by means of alkali. A long slow boil at a fairly low pressure gives better results than a quick boil at a high pressure. The use of caustic soda is to remove grease always present in rags, and to convert it into soluble soaps, which are washed out in the washing water.

The alkali also removes a good deal of coloring matter, starch, size and other impurities. When lime is used instead of caustic soda or soda ash there is the risk of the formation of insoluble compounds, and the rags are often hardened; nevertheless, in some mills, where the washing water is very soft, the addition of lime seems to be absolutely imperative, otherwise it is impossible to get rid of all the grease, and it is found coating the sides of the breaker. In other mills, where the water is very hard, the use of caustic soda, together with soda ash, gives the best results in practice.

When the boil is complete the boiler is blown off, and the dirty water, containing the dissolved grease, etc., is run away to the sewer or other convenient place, unless the soda is to be re-

covered. The boiler is then filled up with hot water and rotated for a further period of about an hour. This washing water is then run off, and the rags are ready to be emptied out. It is advantageous if they are then put through a conical washer of the same construction as the duster already described. This washer rotates in running water, which carries away more dirt, and the remains of caustic soda, and greatly reduces the time of the final washing in the rag breaker. The rags are emptied from this washer into boxes on wheels, and are ready to be taken to the rag breakers.

The washing of the rags is effected in the following way:—

The breaker is filled with water and the rags are thrown in, circulation being at first assisted by means of a "stick" or wooden paddle. When the required amount of rags has been furnished the drum washers are let down until the lower portion of drum is immersed to a depth of about six or eight inches. The drums are driven by means of a belt which is connected to the shaft of the breaker roll. As soon as the drum is down it starts to pick up dirty water, and discharge it into the trough and so to the drain. In order to compensate for the water being removed fresh water is run in from the tap, and the washing proceeds until the water leaving the trough is as clean as that coming in. When this stage is reached the rags are clean and ready to be bleached.

During the period of washing the rags are being "broken in" by the action of the breaker roll on the bed plate. The principle of the operation is to undo the work of the textile manufacturer and brush out the rags into threads again. The breaking goes on until all the material is "out of the rag" and into untwisted and brushed out threads and fibers.

Irreparable damage may be done to the rags in the breaker if the breakerman is careless in his handling of the roll. It is necessary for him to grip the rags firmly at the commencement in order to tear them up, but as soon as this has been done the roll should be eased off and the stuff brushed out carefully.

Rag Bleaching

After the rags have been properly washed and broken in they are ready to be bleached, and this operation either takes place in the breaker itself, or the rags may be emptied into potching engines below.

The approximate dry weight of rag in the potcher is known, and a sufficient quantity of bleaching solution, usually at a strength of about 6° Twaddell, is added, to bring the color up to the desired standard. No hard and fast rule can be made as to the number of gallons of bleach which will be required by each grade of rags, but rather a standard for color should be adhered to, in order to give regularity to the stock.

It is the practice in some mills to run the bleached stock into steeps or drainers, and there to allow the bleach to exhaust itself. This method has an advantage, as it allows the bleaching in the potcher to be more carried out, and it also enables the whole of the bleaching action of the liquor to be exhausted, so that there is no waste. It entails, however, the provision of very large draining tanks or chests, made of concrete, and fitted with perforated zinc false bottoms. The liquor may be retained in contact with the stock for any length of time, and then, by the opening of a valve, the liquor is drained off into a sump, and the rags are dug out and sent up to the beater room.

One great disadvantage of this procedure is the fact that it exposes the bleached rags to dust and dirt which is always floating about, and it also means that a great deal of labor has to be expended in digging them out, and sending them up in trucks or travelling bands to the beater room. To get over the difficulty of handling the rags they may be run, with the spent liquor, into hydraulic presses, and pressed into cakes ready to be taken up to the beaters. In this way they are more easily stored and kept free from dust.

Some useful hints are given in Mr. Clapperton's paper on this subject of bleaching. This is followed by some notes on *beating*.

Notes on Beating

It is in the making of paper from rags that the beaterman can display his skill as a craftsman, and the art of beating must be most highly developed in this branch of papermaking.

It is possible to make any paper, from the bulkiest of blottings to the thinnest and strongest of banks, out of cotton and linen half-stuff.

Cotton will produce extremely bulky paper by reason of the corkscrew shape and form of its long fibers, so that, where bulk is essential, the more cotton rag that can be used the better.

For blottings and filter papers cotton is the most important raw material. It is a thin walled fiber, with a large central canal, capable of absorbing a great deal of moisture. For the making of this class of paper the stuff is beaten off with a sharp tackle as quickly as possible. The quicker the beaterman can get it cut up and prepared the better will the blotting be, and much the same applies to the making of bulky rag printings.

In some cases half-an-hour in the beater is sufficient time for preparing the stuff.

On the other hand, both linen and cotton rags may be beaten for ten or twelve hours, until they are hammered out and crushed almost out of recognition, to make strong thin banks.

Between these two extremes there is an endless variety of papers which can be made, either from cotton or linen, or from a combination of the two in varying proportions.

For pretty looking writing papers the stuff is beaten off quickly to give bulk and a good clear watermark, the length of fiber being sacrificed, and the fibrillation a matter of little importance, as great strength is not required.

Papers from cotton rag which are beaten off quickly, besides being bulky are also opaque. The more prolonged and drastic the beating the poorer the opacity, and cotton papers are always more opaque than those made from linen, or containing a proportion of linen.

To render a linen paper more opaque it is sometimes the practice to add some cotton half-stuff to the beater after the beating has gone on for some time. This cotton will not get so much beating, and will, in consequence, add to the opacity of the sheet.

Pulp Wood

Die Papierholzversorgung (The pulp wood supply), by Gerhard Reinhold, Forestry Experiment Station, Munich. Berlin, Verlag von Carl Hofmann GmbH., 1927. 147 pages, 8 diagrams and 5 maps. Price, bound, 6 marks.

Part one of this work (p. 5-33) is entitled pulp wood consumption; the first chapter discusses the various kinds of raw materials used in the paper industry (rags, straw, grasses, old papers and woods) and gives a brief discussion of the methods employed in converting them into the finished product. Of the woods employed in paper making, 93 per cent consists of spruce and fir (Germany), 78 per cent (Russia), 90 per cent (Canada) and 85 per cent (Scandinavian countries).

Part two (p. 33-82) discusses the relation of forestry to paper making or the production of pulp wood. Thirty countries are considered, including Germany, Russia, Sweden, Norway, Great Britain, Japan, Canada and Newfoundland, and the United States. The information for the U. S. was furnished by Mr. Earle H. Clapp. The map showing the paper and pulp mills in North America is dated 1922.

Pulp wood trade customs and duties for the important countries of the world are summarized in parts three and four. Part five considers the transportation of pulp wood. The factors affecting the price of pulp wood is discussed in part six.

Most of the data in the tables which conclude the book are for 1926 or earlier. This is not surprising, when we consider how difficult it is to secure statistics from government agencies. The work should prove of value to any one interested in the sources and supplies of pulp wood.—C. J. West

Fastness Measurements for Colored Paper*

By P. Dalen[1] and P. Wilke[1]

Those colors are termed fast to light which offer great resistance to change in shade through exposure to direct sunlight and daylight. The degree of fastness is determined by the time necessary for a perceptible change in color to take place, and then subsequently under further exposure, the increment of change is observed. Paper dyed with fast colors must be exposed many hours to direct sunlight, or a week in daylight, for a change in shade to be appreciable. Paper dyed with inferior colors changes in shade after ten minutes exposure to sunlight, or after a few hours in diffused daylight.

The action of direct sunlight and daylight depends very largely on the height of the sun, the time of the day and year, the situation of the place of observation, and the purity of the atmosphere. At different times and places and under different meteorological conditions, experimental results are not comparable with one another. In actual practice it is especially troublesome that in the winter months the number of hours of sunshine is very limited, and the action of the sunlight and daylight is so weak that a long period of time is required for experiments. In order to accelerate such investigations, an electric arc-lamp has been used at the Testing Station since 1904, which is particularly rich in the chemically active rays. Since, however, with this lamp coal has to be burnt in a glass cylinder which absorbs a considerable proportion of the active rays causing the glass to become cloudy, its action is difficult to estimate unless a specimen of known fastness is compared under the same conditions. Because of its low efficiency and large consumption of current, the use of the lamp was only continued as a makeshift during the shortest winter days.

From another point of view, the use of the Heraensschen Quartz Mercury Vapor Lamp is to be considered. This lamp was used when opportunity arose for investigations on the fastness to light of dyed textiles, and it was noticed that the action of its light did not always conform with that of sunlight (see *Leipsiger Monatsschrift fur Textil-Industrie,* 1925, Vol. 3. Prof. Heermann and Dr. Sommer). Since, however, the conditions with paper were different to those with textiles, experiments were begun in order to determine whether through illumination of colored papers with the above-mentioned lamps the same or similar results were to be obtained as with exposure to sunlight or diffused daylight, also what period of time is necessary for illumination with the lamps and the proper experimental conditions.

For the experiments, 51 differently dyed kinds of paper were obtained from three paper mills. In the interests of the mills concerned, information regarding the particular dyestuffs used cannot be given, which, however, is of no importance under the circumstances, since comparison is only being made between the actions of the quartz lamp and sunlight and daylight. For protecting the eyes from the intense light, the lamp is enclosed in a wooden case, which is ventilated.

The strong odor due to activated air during the first hours of burning gradually diminishes, and is only faint after the lamp has burnt for 500 hours.

On the colors themselves, the activated air does not appear to have any influence itself; in any case, colors which are very sensitive to light do not show any change after six hours' exposure in the apparatus (*not* in the direct path of the rays).

Some preliminary experiments were made to determine the most convenient distance of the test piece from the lamp, and further what temperatures prevail at the various distances. For this purpose, paper strips soaked in a solution of methyl violet were illuminated by the lamp at distances of 8, 16, 32, and 48 cms. At 8 cms. distance, 10 minutes' exposure was given, and at the remaining distances a time necessary to change the color by the same amount as at 8 cms. distance with 10 minutes' exposure.

Since the alteration in color is quite gradual and the eye is incapable of appreciating the change from minute to minute, only limited values can be fixed for the time.

At the lower limit the change in shade will be somewhat less, and somewhat greater near the upper limit than the 10 minutes' exposure at 8 cm. distance condition. In the adjoining table the limiting values for the time of exposure, the times proportional to the squares of the distances, and the temperatures of dark and undarkened bulbs, are indicated.

As is apparent from the table, the limiting values lie somewhat far apart, but at all distances the times, which are proportional to the squares of the distances, lie between the lower and upper limits.

Experiments with other colors give similar results, only the limiting values are still farther apart. The decrease in the action of the light on the colors with increasing distance follows the same law as the decrease in intensity of illumination with distance. In judging the action of the light at varying distances on the colors, the different temperatures (Table 1, Columns e and f) and also the varying content of moisture of the test pieces must be considered. After 30 minutes' illumination, a paper, for example, which at an air humidity of 65 per cent contains 7.1 per cent of water, loses 4.5 per cent at a distance of 16 cms., but only 2.3 per cent water at 48 cms. distance.

That temperature and humidity influence the action of the light cannot be doubted, but in what manner and to what extent had not been elucidated until the present investigation with any certainty.

Preliminary Experiments

As a preliminary experiment, test pieces of dyed paper were placed at the rear portion of two chambers fitted with quartz windows (about 1 cm. from the windows). Through one chamber air at 40 per cent saturation with moisture was admitted, and through the other fully-saturated air. Both chambers were illuminated at the same time, and distance, by the quartz lamp. After a fairly long exposure and several days' storage away from the light, the test pieces were compared. It was noticed that they showed small differences with one another. Those illuminated in a saturated atmosphere showed that the surface was somewhat rougher and the color more affected than in the samples exposed in a drier atmosphere, the action of the light having been more penetrating, so that the color on the underside of the paper showed a slight change in shade. On comparing the test pieces with the

* Wochenblatt für Papierfabrication.
[1] State Testing Station, Berlin-Dahlen, Germany.

TABLE 1

Distance of the test piece from the lamp.	Times of illumination giving the same change in color.		Times proportional to the squares of the distances.	Temperatures given in thermometer with—	
	Lower limiting value.	Upper limit.		Blackened bulb.	Unblackened bulb.
Cm.	Minutes.	Minutes.	Minutes.	C°	C°
a.	b.	c.	d.	e.	f.
8	10	10	10	66	61
16 = (2 × 8)	30	45	40	45	42
32 = (4 × 8)	135	180	160	36	33
48 = (6 × 8)	345	405	360	32	28

TABLE 2

Samples.	Composition of Paper.	Lamplight.				Sunlight.				Daylight.	
										Days.	
		1/3	1	2	4	1	3	9	18	20	60
1—7	Free from wood										
8—18	Containing wood										
19—21	Wood cellulose; mechanical wood 20%										
22	Wood cellulose; 5-10% mechanical wood										
24—39	Parchment										
0—51	Wood cellulose and rag										

unexposed paper, it could not be stated with certainty which of the two had been more affected by the light. By direct illumination (without using the pane of quartz) of test pieces in atmospheres fully saturated up to completely dry, no definite results could also be obtained.

The use of extremely light sensitive dyes or an increased period of exposure may render it possible in later experiments to arrive at a more certain conclusion. On the basis of the foregoing experiments, 16 cms. was chosen as a suitable distance of the test pieces from the lamp. The temperature, which the pieces are subjected to at this distance, is the same as the pieces would acquire by direct exposure to sunlight during the summer months. For the experiments, a relatively short exposure is sufficient at this distance, and by placing the pieces on the circumference of a circle of 16 cms. radius with the lamp at the center, a large number of pieces can be exposed at the same time.

Pieces were exposed to the action of the lamp for 10, 20 and 30 minutes and 1, 1½, 2, 2½, 3 and 4 hours. By comparison of exposed with unexposed pieces of paper, it was found impossible to differentiate between the action of small increments of time, so that for correlating the results, only four periods of exposure were noted, namely, 20 minutes, 1, 2, and 4 hours. After 4 hours' exposure, further change was so slight that there was nothing to be gained in continuing for a longer time.

Preliminary experiments having shown that the action of the lamps noticeably diminishes during the first few hours of burning, and that the diminution becomes less after a further period, it does not seem advisable to carry out experiments over a long time, but to wait until the lamps have become constant in action After the lamps have burnt about 200 hours, the action of the light has diminished by about one-half, that is to say, for the same degree of effect about twice as long a period is necessary than during the first 10 hours. A further diminution in the action takes place, but this is too small to influence appreciably the results obtained. Various methods were adopted for grading the changes in color. First of all, the degree of change was significant by the numerals 0—8. Since, however, there is a tendency to consider numerals as denoting magnitude and not as ordinal numbers, small type letters were employed: *a* = unchanged; *b* = slightly changed; *c* = strongly changed; *d* = very strongly changed. Since slight differences in judging the extent of change are unavoidable with two persons comparing results, and, moreover, working on different days, it was necessary to introduce a signification for an extent of change coming between the conditions enumerated above.

For comparing the action of the light from the quartz lamps with that of sunlight, 51 test pieces were exposed to the action of the sun's rays without any glass covering for 1, 3, 9, and 18 hours. The insolution took place in May, 1926, in the hours between 10 a.m. and 2 p.m. The samples were so placed in the open that the sun's rays fell perpendicular on them about 12 noon.

In order to determine the action of weak daylight, the 51 samples were exposed for 20 and 60 days during the months of November and December. The results of the complete experiments are collected together in Table 2.

In Tables 3 and 4 the results have been re-arranged to bring out more clearly the important points. Table 3 gives a general review of the behavior of colored papers in lamp, sun and daylights.

TABLE 3

DIVISION OF THE 51 PAPERS INTO THE CATEGORIES *a-d* AND THE DIFFERENT PERIODS OF EXPOSURE

Category.	Lamplight.				Sunlight.				Daylight.	
	Hours' exposure.				Hours' exposure.				Days.	
	1/3	1	2	4	1	3	9	18	20	60

In Table 4 is shown in how many instances the different kinds of light have effected the same result for a given period of exposure, and how frequently and how great the deviations were. The two series indicate how often one or another quality of light has acted more for a given comparable time. The choice of comparable times of exposure is naturally somewhat arbitrary. As a standard, the times are taken at which the greatest uniformity is obtained.

Accordingly the times: 1/3 hour lamplight with 1 hour sunlight or 1 hour lamplight with 3 hours sunlight, and 2 hours lamplight with 20 days daylight were compared. Better uniformity would be obtained if it were possible to wait for periods when the deviations were equally numerous above and below for the qualities of light under comparison.

In this case many more changes would have to be signified. However, to draw a parallel, amongst the 51 samples tested in no case have striking differences been found in the action of the lamp and direct sunlight.

Considerably greater and more numerous are the differences on comparison of the action of lamplight and daylight, but similar

TABLE 4

COMPARISON OF THE ACTION OF LIGHT AT DIFFERENT INTERVALS OF EXPOSURE

Deviation from Category.	Lamp 1/3 hour, Sun 1 hour	Lamp 1 hour, Sun 1 hour	Lamp 1 hour, Sun 3 hours	Lamp 2 hours, Sun 3 hours	Lamp 2 hours, Sun 9 hours	Lamp 4 hours, Sun 18 hours	Lamp 1 hour, Daylight 20 days	Lamp 2 hours, Daylight 20 days	Sun 9 hours, Daylight 60 days	Sun 18 hours, Daylight 60 days
None										
½ Division										
1 Division										
1½ Divisions										

large deviations are also found on comparison of the actions of sunlight and daylight.

The anomalous behavior of daylight results largely from the test pieces being exposed between double windows facing north for 20 and 60 days, the air between the windows changing in humidity content.

The experiments have shown that although no parallel action exists between lamplight and sunlight, the difference is not considerable. The change in the action of the lamplight is a drawback which is only appreciable during the first 10 or 20 hours burning, and later is inappreciable. Sunlight also varies in action according to the time of the year and day and situation, so that no consideration in testing the fastness of colored papers should exist against the usé of the quartz mercury lamp as a substitute for sunlight in those cases where the latter is not effective enough.

Experiments can be carried out with the lamp at any time and results quickly obtained with the remote probability that the latter will differ to any practical extent from those obtained with sunlight.

German Publications Review Technical Meeting

Reviewed by C. J. West

The Verein der Zellstoff und Papier-Chemiker und Ingenieurs held their annual meeting in 1928 at Heidelberg and Konstanz. Following their usual custom both Der Papierfabrikant and the Wochenblatt für Papierfabrikation issued special numbers for this event.

Again these numbers are really books in size, Der Papierfabrikant consisting of 284 pages (of which 122 are text) and the Wochenblatt für Papierfabrikation consisting of 112 pages of text and 160 pages of advertisements. Again also, the pages of the two magazines are printed on papers which illustrate the products of many of the German mills.

Der Papierfabrikant opens with a three page article by v. Wussow, on "Why Konstanz?" stating the paper making activities of that city. Then follows (p. 38-41) a brief story of the life of Eugen Ritter Freiherr von Záhony, by Walter Sembritzki; Ritter is known to the paper industry for the Ritter-Kellner process. W. Schmid (p. 41-43) discusses the rod mill, well known to American paper makers through the work of Rue. Johannes Teich and Max Herold give a popular illustrated account of paper making in Brazil. Friedr. von Hössle (p. 47-58) contributes his usual historical article, this time discussing old paper mills of the Hessian lands, and giving watermarks of these early paper makers. August Noll (p. 59-61) reviews methods of detecting sulphur and sulphurous acid, with special reference to their application to pulp and paper. Fritz Hoyer (p. 61-63) considers the manufacture of insulating boards. Percy Waentig discusses the action of concentrated sodium hydroxide upon cellulose, in which he shows that the spontaneous decomposition of alkali cellulose at ordinary temperatures is due to the oxygen of the air. Ernst Hochberger (p. 66-88) contributes an exhaustive article on the bleaching of sulphite pulp at high density. The velocity of bleaching is proportional to the initial concentration of the bleaching agent; the reaction velocity is proportional to the square of the concentration of the unchanged bleaching agent at any given time; the dilution of the active bleaching agent increases in an arithmetical progression. The decrease in the hydrogen ion concentration during the bleaching operation is rectilinear, that is, the course of the hydrogen ion concentration is a logarithmic curve. Erik Hägglund (p. 83-92) continues his studies on the chemistry of the sulphite digestion process, the present article considering the determination of the degree of digestion of sulphite pulps. He shows that there is a proportionality between the true degree of digestion, *i.e.* the lignin content, and the chlorine consumption, determined according to Enso and Siber, or the bromine number of Tingle. The Roschier number corresponds with the true degree of digestion only with very hard pulps with large lignin contents (3 to 4 per cent). As the digestion proceeds, the relation becomes less exact. This is also true of other permanganate methods, such as Björkman, probably due to the sulphonation of the lignin, as the digestion proceeds. The solid lignosulphonic acids are oxidized with greater difficulty than those which are less sulphonated. Thus, the action of hypochlorite during bleaching is not simply an oxidizing effect. The following comparative values were obtained for pulps with 4 to 6 per cent lignin: Enso chlorine number, 4 to 5.5; Tingle chlorine number, 2.5 to 3.5; Roschier number, 25 to 35; Björkman number, 85 to 100. Erik Oman (p. 92-96) describes his study of the washing and treatment of sulphite pulps during preparation, following the hydrogen ion concentration. L. J. Dorenfeldt (p. 97-107) discusses the history of the sulphate process. P. Weiske and K. Rupprecht (p. 107-115) consider electric drives for continuous wood grinders, while Lorenz Kiessling (p. 120-124) considers drives for rolls. Finally W. Weltzien (p. 115-120) gives results of a study of the alkali soluble constituents of sulphite pulps and artificial silk.

The Wochenblatt für Papierfabrikation opens with an illustrated description of Kinstanz by Heino Castorf (p. 1-9); Friedr. von Hössle (p. 10-27) describes old paper mills from Biberach to Basel. Fr. Müller (p. 27-47) gives an extensive account of studies by Heller, May and Schollock on a continuous grinder of the Voith type. Walter Brecht (p. 48-60) discusses rubber rolls, methods and machines for testing their hardness and the relation of the hardness to their action in drying. Arthur St. Klein (p. 60-67) gives a general discussion of recent work on wood and pulp. G. Lest (p. 67-76) discusses the use of high pressure steam. Alois Danninger (p. 76-78) describes a new sulphite tower. Weiske and Rupprecht (p. 79-88) treat of multiple motor drives for high speed paper machines. Paul Klemm (p. 88-95) gives a general discussion of the size of paper fibers. Heino Castorf discusses the economics of the paper industry for the year 1927. Carl G Schwalbe (p. 107-108) discusses the relation between the degree of beating of pulps and the alkali solubility of pulp slimes. Finally, there is a brief report on the possibility of developing a paper industry in Chile.

Keyes Fibre Co. Joins TAPPI

The Keyes Fibre Company, the largest producer of paper plates in the world, has become a corporate member of the Technical Association of the Pulp and Paper Industry. This company, with mills located at Waterville, Maine, are owners of the well known "Paprus" trade mark of plates and dishes that are marketed through the John M. Hart Company, of New York City. The representative in the Technical Association will be M. P. Chaplin, chief engineer of the Keyes Fibre Company. Mr. Chaplin is an active member of the committees on Heat, Light and Power, Corrosion and Waste Problems, and Mechanical Pulp.

Joins Oxford Research Department

Howard W. Morgan, a junior member of TAPPI and instructor in mill analysis and paper testing at the New York State College of Forestry, Syracuse, N. Y., has become a member of the Rumford Branch of the Oxford Research Department.

Mr. Morgan received both the B.S. and the M.S. degrees from the above college, his thesis for the latter degree being "The Effect of Hydrogen Ion Concentration on the Hydration of Cellulose," which was published in the November 10 and November 17, 1927, issues of Paper Trade Journal.

Hydrated Cellulose

A Review of the U. S. Patents Relating to the Gelatinizing or Hydrating of Pulp by Mechanical and Chemical Means

By Joseph Rossman [1]

When chemical wood pulp is beaten in the presence of water for a long time it becomes gelatinous and loses its fibrous structure. On drying this gelatinous cellulose it shrinks and gives a hard horny mass. In thin sheets it gives a translucent paper. The nature of the changes produced in gelatinizing wood are not definitely understood. It may be caused by intramolecular distension, hydrolysis and oxidation with the formation of hydrocellulose, oxycellulose and dextrines. Wood cellulose obtained from wood by chemical treatment so as to remove the lignin, gelatinizes readily in the usual paper worker's beater. Mechanical pulp is slightly gelatinized. In the presence of acids or alkalis the gelatinization of cellulose is accelerated on beating with water.

The following abstracts give the methods and apparatus used for making gelatinized cellulose. The patents have been segregated into two groups. The first group contains the patents which treat the cellulose only by mechanical methods and the second group contains the patents in which the hydration of the cellulose is carried out in the presence or by means of chemicals.

Mechanical Methods

1. Herzheim, 602,558. April 19, 1898.

Sulfite cellulose is ground or reduced with water in a rag-engine or pulping-machine having dull knives until the cellulose is reduced to a transparent or translucent gelatinous condition, usually from ten to fifteen hours. This mechanical treatment changes the sulfite cellulose to a substance which closely resembles hydrocellulose in its properties. This modified sulfitecellulose pulp is manufactured into paper in any common and well-known way. This paper is drawn through or immersed in or otherwise coated with a solution of pyroxylin in any suitable solvent.

2. Brunswig, 622,325. April 4, 1899.

The process of transforming cellulose into cellulith, which consists in disintegrating and reducing fibrous cellulose to an impalpable condition in the presence of water, boiling the resultant pulp to expel the air, removing the impurities and unreduced cellulose, molding the paste into desired forms and drying it.

3. Jackson, 1,083,102. December 30, 1913.

The method of preparing previously ground paper pulp which consists in imparting a circulatory movement to the pulp and repeatedly subjecting the fibers during such circulation to a mechanical treatment comprising a continuously repeated combined vibratory tapping or hammering and a rubbing or dragging action.

4. Jackson, 1,133,968. March 30, 1915.

In apparatus for hydrating, pulping or reducing material in a wet or semi-liquid state, the combination with a casing, of beaters pivotally connected thereto, a rotary disk having a ribbed surface against which the beaters contact, beaters pivotally connected to the disk both on the periphery and on the under surface, and ribs on the casing against which the second-named beaters contact with a gentle hammering action.

5. Howard, 1,258,568. March 5, 1918.

The process of treating paper pulp, consisting in introducing pulp and water within a vat, causing said material to flow within the influence of a pair of rapidly revolving rolls whereby the surface friction of said rolls will draw a portion of said pulp and a reduced amount of water between the rolls to cause the same to rise and float upon the remainder, and discharging said withdrawn pulp and water and the remainder of the water and pulp by separate outlets.

6. Fritz, 1,556,926. October 13, 1925.

A machine for hydrating pulp having a plurality of substantially vertically aligned chambers, substantially vertically aligned rotary beaters in said chambers, said chambers having curved wall portions with inwardly tapering disc segments lying closely adjacent the surfaces of said beaters, and means for feeding material to the uppermost of said chambers, whereby said material is fed by gravity from each beater to the adjoining lower beater, said beaters and disc segments cooperating to beat and refine the same into a disintegrated hydrated homogeneous mass as it travels through said machine.

7. Fritz, 1,556,927. October 13, 1925.

A machine for hydrating pulp, a vertical chamber having an inlet at the top thereof and an outlet at the bottom, the inner walls of said chamber being circumferentially channelled, and having disposed in said channels disc portions, a centrally located rotor consisting of a vertical shaft having thereon a number of discs the surfaces of said discs lying closely adjacent the surfaces of the wall discs, and means for feeding material to the upper portion of the chamber, whereby said material is fed by gravity to each lower area while being thrown outwardly and inwardly the revolving discs cooperating with the stationary discs to hydrate, disintegrate and refine the fibrous material as it travels through said machine.

8. Clapp, 1,566,310. December 22, 1925.

The method of making dense hard fiber board, which comprises beating cellulosic material until the fibers are well hydrated, then sheeting the stock on a paper-making machine and drying the same, and subjecting the sheet or portions thereof to heat and high pressure of an order of about 2,500 pounds to the square inch.

9. Muirhead & Mansfield, 1,577,344. March 16, 1926.

A pulp hydrator comprising a pump having inlet and discharge pipes connected thereto and an elongated tubular casing of substantially greater transverse area than the area of said pipes and connected at its ends to said pipes, respectively, to form a closed fluid circuit through which the fluid may be circulated by said pump, said discharge pipe from the pump being arranged to project a jet into said casing longitudinally thereof.

9. De Cew, 1,598,267. August 31, 1926.

A method of hydrating cellulose fibers within a continuous beating machine of the jordan type, which consists in pumping the pulp stock to a height above the beating machine, then passing it through a thickening device from which it is discharged at a concentration of over 4 per cent total solids into a pipe carrying it to the beating machine, the pipe being filled with stock to a sufficient head to produce a pressure within the machine of over 5 pounds per square inch.

10. Gannon, Mahle & Wells, 1,606,162. November 9, 1926.

A process of making paper, which consists in depositing a layer of pergameneous paper stock comprising sulphite pulp stock prepared to form a grease-proof material, depositing thereon paper stock for forming the body of the paper, and thereafter expressing the surplus moisture from the thus combined stock in a direction away from the layer of pergameneous stock and through the body-forming stock.

11. Ellis, 1,607,517. November 16, 1926.

A process of making waterproof paper suitable for use with food products, which consists in the addition of an aqueous wax dispersion containing a petroleum hydrocarbon oil, to a pulp containing hydrocellulose, in a beater engine, at an elevated temperature.

12. Jackson, 1,652,720. December 13, 1927.

Apparatus for pulping or hydrating fibers comprising a closed cylindrical casing, metal laths and wooden laths arranged alter-

[1] Patent Attorney, Washington, D. C.

nately longitudinally of the casing to form a lining therefor, a central shaft within the casing apertured discs keyed thereto, rods passing through the apertures in the discs and hammers pivoted on the rods to contact with the lining of the cylinder each of said hammers being of cranked form with a flat sole and provided with a boss elongated at one side only to enable the hammers on adjacent rods to be assembled in staggered formation.

Chemical Methods

1. Lowe, 33,092. August 20, 1861.

Fibers of reeds, straw, and manila hemp are boiled in a solution of caustic soda in a rotary boiler under a high pressure at 135 degrees Fahrenheit, the boiler being moved about five revolutions per minute. This treatment may be continued twelve hours or more, according to the effects or results. The agitation of the stock greatly facilitates the separation of the fiber and the breaking up of the insoluble foreign matter, which in the common method prevents the fibers from coming together in the process of felting. After the fibers have been thoroughly separated great care must be taken in washing this short fiber not to waste the same. A worm-cylinder washer with wire-cloth is used having meshes to suit the condition of the stock and the kind of paper to be made. When the fiber has been thoroughly reduced it is treated with sulphuric acid, about one pound of acid to one hundred pounds of fiber with a proper quantity of "bleach-water," at 1½ degrees to 3 degrees Baumé, the same as used in bleaching straw fiber. When the bleach is nearly exhausted the stuff may be put into the old grinding-engine to be pounded, in order to make the stuff hold the water and to bring it into condition to properly felt. This treatment may be effected by a jordan engine; but it is very important that the knives be dull, so as to give considerable surface, and thus pound instead of cutting the fiber.

2. De Cew, 1,140,799. May 25, 1915.

A process of treating a cellulose or lignocellulose material with a dilute alkali, an alkaline thiocarbonate or an alkali and carbon bisulfid or one of its compounds, whereby the material will absorb water and become hydrated, so that it can be ground by mechanical processes into strongly fibrous material.

3. Clapp, 1,280,400. October 1, 1918.

The invention consists in the preparation of a suitable sizing compound from vegetable material such as tree bark, tanbark waste, peat moss, waste flax straw, salt-marsh hay, corn stocks, sawdust, sea-weed and all like materials which are partially soluble in caustic soda, caustic potash, or their equivalents, when mixed with the fibrous stock in the beater engine and precipitated by any suitable agent such as alum, aluminium sulfate, or other metallic salts, results in both waterproofing and substantially fireproofing the finished fiberboard made from such pulp.

4. Schorger, 1,310,376. July 15, 1919.

The method of producing impregnated compositions and products, which comprises subjecting sawdust and the like to hydrolysis with sulfuric acid, removing water-soluble constituents from the hydrolyzed product, subjecting the moist hydrolyzed residue to disintegration with the production of a finely pulverulent product, incorporating the fine-divided product with a fibrous material to form a pulp, converting the said pulp into a sheet and drying the same, and subjecting the dried sheet to an impregnating treatment with asphalt.

5. Clapp, 1,332,541. March 2, 1920.

A process for making counterboard, which is characterized by treating so-called soft stock in water with alkali, at a temperature below 70 degrees F., to cause hydration thereof and with a suitable coloring matter and beating out said soft stock; forming the beaten out stock thus obtained into sheets; and drying said sheets.

6. Imaoka, 1,333,255. March 9, 1920.

Take outer bark of abaca, steep in water and then boil it with or without pressure in from 2 to 5 per cent solution of caustic soda. The fibers will thus be separated from the bark and at the same time the non-fibrous portion being gelatinized and expanded, the fibers will become very adhesive. Then wash the fibers in a beater or the like with fresh water and cleanse them from any foreign matters intermingled therewith, and beat them, and these fibers covered with viscous gelatinized substance as mentioned above will be obtained. With the fibers thus prepared, paper is manufactured according to any known suitable method.

7. Peabody, 1,406,410. February 14, 1922.

Process of making fiber board which consists in thoroughly mixing a batch of fiber with water and thereafter adding liquid cellulose to the said batch of fiber while suspended in water, manipulating the whole until the cellulose is uniformly distributed, then extracting the water, then treating the material with a solution of a deliquescent salt and allowing the material to dry.

8. Clapp, 1,566,309. December 22, 1925.

Waste animal matter, such as fleshings from tanneries, waste bones, fish scraps, waste hair from tanneries, either washed and cleaned or containing lime and solid animal matter, when beaten out in the presence of cellulose and water to the point of hydration of the cellulose and then formed into sheets and dried, can be used for many purposes giving a dense, relatively hard, sheet material, which, when subjected to heat and high pressure, may be molded into buttons, phonograph records, printing plates, insulators and the like.

9. Marshall, 1,506,317. August 26 ,1924.

A method of making rubberized fiber consisting in incorporating rubber latex with paper pulp, coagulating the latex, making the product into paper, impregnating the paper with rubber latex, treating the paper with a coagulent, then drying and hydrating the paper.

10. De Cew, 1,578,405. March 30, 1926.

A method of preparing cellulose fibers for paper making, which consists in beating and jordaning the cellulose in water containing cold dilute soluble caustic alkali and then sizing the fibers by a special series of operations in which the alkalinity is neutralized.

11. De Cew, 1,580,814. April 13, 1926.

A method of treating cellulose fibers for paper making, which consists in hydrating the fibers by beating and jordaning them in the presence of a soluble alkali until the fibers are made pliable by the penetration of the alkali, and then neutralizing the alkali that is on the surface of the fibers and in the solution surrounding the fibers, by means of sulphate of alumina.

12. MacKay, 1,599,831. September 14, 1926.

The process of preparing paper half stock which consists in chemically hydrating a batch of paper making material, simultaneously drawing out and straightening the fibers of said material, mixing the chemically hydrated material with another batch unhydrated in a predetermined proportion, and subjecting the mixed batches to a mechanical beating.

13. Ellis, 1,607,518. November 16, 1926.

A process for treating paper pulp which contains hydrocellulose comprising the adjustment of the hydrogen ion concentratic of said pulp so as to increase the absorption of a wax emulsion.

14. Ellis, 1,607,519. November 16, 1926.

The process of treating paper pulp which comprises incorporating with the pulp in the beater engine a quantity of rosin size, setting the size, incorporating the wax dispersion and setting said wax dispersion.

15. Maze, 1,607,552. November 16, 1926.

The process of producing waterproof paper, which comprises treating paper pulp containing hydrocellulose with an emulsion containing paraffin wax, allowing the dispersed wax to react with said hydrocellulose and thereafter forming the pulp into sheet form.

16. Schorger, 1,631,834. June 7, 1927.

The method of reducing wood to a gelatinous, structureless mass, which consists in grinding the fibers in a dilute alkaline solution at an elevated temperature but below the boiling point of water.

17. Barnard & Caswell, 1,648,838. November 8, 1927.

A process of treating cellulosic pulp in the formation of paper, which comprises beating the cellulosic pulp to effect the hydration thereof in the presence of ammonia, increasing the ammonia content of the pulp after beating, and then adding a soluble metallic salt.

Graphic Metering on Sectional Drives

By K. L. Howe[1]

All present day sectional paper machine drives are equipped with the conventional indicating meters, such as ammeters, voltmeters, wattmeters; and such indicating instruments as may be required for the A. C. prime mover.

Since the advent of sectional drive equipment it has been customary to furnish an ammeter for each motor of the drive; while ammeters and voltmeters are furnished for the main generator. In case the main generator is driven by an alternating current motor (usually a synchronous motor), ammeters, a power factor meter, and sometimes a watthour meter, complete the metering equipment for a sectional drive. Depending upon the manufacturer of the sectional drive, there might be various accessory voltmeters and ammeters for purposes of limitation-indication on some part of the control apparatus.

This metering equipment, consisting entirely of the indicating type, can never present a composite view of paper machine conditions. The load readings often tell a very important story, especially when comparative readings are available between the various sections of the drive. Obviously the only means of comparison between instantaneous loads and transient conditions, are a graphic chart.

The most important question in connection with graphic equipment is, just how much is required. An analysis of the story we wish to tell graphically will determine this point.

As previously referred to, indicating instruments are perfectly adequate for normal stabilized conditions where we can look at one ammeter and, at the same time, know that load conditions on the remainder of the drive are stable. Graphic equipment is, therefore, most important under abnormal or fluctuating conditions, whether in connection with the driving and regulating equipment, or on the paper machine.

Wet End Variables

Variable conditions and changing loads are almost always confined to the wet end of the paper machine. Hot bearings, felt guide rolls, oscillating equipment, such as oscillating doctors and felt conditioners, eccentricity in any main roll, slight changes in tension on felt or wire, as well as innumerable changes in stock and water, all tend to produce oscillating or pulsating load conditions on different sections of the wet end of the machine. Many causes of load fluctuations may be analyzed by inspection; but those load fluctuations or variations which are not at once apparent, are most easily segregated by graphic load analysis of current input to the various sectional motors.

Graphic ammeters are adequate because of the fact that a sectional drive operates on a common voltage generated by the one main generating unit. Since all sectional motors receive their power supply from a constant potential bus, a current chart showing the current input to the different motors may be considered in terms of a load chart, while the investment cost in graphic metering equipment is greatly reduced by using graphic instruments with current coils only.

Present day practice is to locate the ammeters, indicating the load taken by each motor, in the immediate vicinity of the sectional driving motors. This gives the machine operator direct supervision over the loads taken by the various motors, but this system does not lend itself readily to a centralized graphic system of metering because of the remote location of the shunts to which the machine floor ammeters are connected.

Central Graphic System

A centralized graphic system can be made very flexible by inserting shunt in the motor leads immediately behind the control board, and so arranging the location of these shunts that they will be unobstructed and accessible for making connections to the graphic instruments while the drive is in operation.

Modern control boards are so condensed and simplified that a shunt can be inserted in each motor lead, and meter leads run from each shunt to some centrally located test panel on the control board without exceeding the limitations in length of shunt leads commonly adhered to. In addition to having a shunt in each of the motor leads, a shunt should also be provided in the main generator lead, so the totalized current could be read on one of the graphic charts. By this arrangement, load changes on any particular section can be traced to the main generator, for a varying current demand. The changes in load current on any particular section, which are immediately absorbed by an adjacent section, tell a definite story regarding the transfer of energy between sections on the paper machine itself. Mountings for portable graphic instruments can be provided on the upper part of a centrally located test panel; while leads to the current shunts can be brought out on test terminals at the lower end of the panel.

Portable Instruments

Portable graphic instruments are most satisfactory because of their universal application to other metering circuits. The portable instrument makes the investment in graphical equipment appear to great advantage over a permanently mounted instrument which is available for one purpose only. At least two graphic ammeters are desirable; three graphic ammeters, one of which should have a double element and two pens drawing curves on the same chart, comprise a very efficient combination. With this arrangement a synchronized graphic chart can be obtained of instantaneous load conditions on three or four sections of the paper machine. Graphic instruments should be so chosen that their design will permit of a simple temporary mechanical linkage between the main driving rolls of adjacent instruments so their charts may be set and operated as a unit.

Sectional drives obtaining speed control by means of regulating devices in the shunt field of the driving motors, provide an easy means for checking regulator speed performance. By inserting a shunt in the motor field circuit graphic charts can be made of motor field current. A graphic check between the motor field currents and the motor armature currents tells the complete story regarding regulator performance and at the same time checks load conditions imposed on the motor. Load changes which are not accompanied by changes in motor field strength may be assigned to changing load conditions on the paper machine. Changes in armature current which precede changes in field current are naturally caused by changes in load; while, changes in armature current, preceded by changes in field current, may be traceable to erratic action on the part of the speed regulator.

An installation of graphic equipment might be laid out on the individual motor panels of the control board; but this does not represent the most desirable arrangement because of the difficulty in synchronizing the various graphic charts. Bringing all shunt leads to a common test panel, centrally located in the center of the control board is the most economical and efficient arrangement. Graphic instruments can be located in line, and chart rolls can be synchronized by means of temporary mechanical linkages between instruments.

The problems, such as we have just discussed, are purely operating and economic subjects; and to this end must be considered by the purchaser or user of this type of equipment. The layout of graphic equipment by a manufacturer would never be universally adaptable to all operating conditions and therefore must be designed and laid out by the paper company's engineers to meet their particular requirements.

[1] Control Engineer, Westinghouse Elec. & Mfg. Co., Seattle, Wash.

Screening of Sulphite Pulp

SPECIAL INQUIRY No. 113

Two members are having difficulties in screening sulphite pulp. One member writes:

"The general layout of the screening system in our mill is as follows: Pulp is pumped from the chest to a head box, where it is diluted before entering the knotter (IMPCO). It is then riffled and goes to the flat screen. The screened pulp goes to a wood washer for thickening and is pumped from there to wet machines that supply the bleach tanks.

"Bearing in mind that the screens are to have ample capacity for requirements and that the stock is for bleaching and must be clean,

1. At what consistency should it enter screens?
2. What cut of plates should be used?
3. Should the screens be entirely covered with stock suspension or should a part of them be allowed to remain dry?"

The other member writes:

"In our sulphite mill we are at present screening with IMPCO rotary screens, using flat screens to clean the tailings. This does not give us as clean a pulp as we desire. We are considering rescreening the sulphite and would like suggestions from the members covering the following points:

1. Should flat screens only be used in screening sulphite or should rotaries also be used?
2. What is the relative difficulty in screening bleached and unbleached sulphite?
3. Is it best to rescreen before or after bleaching?
4. In screening sulphite what use is made of rejects?
5. What layout would give us clean pulp at a reasonable cost?"

Inquiries handled under the Service to Members plan of TAPPI are of greatest value to all who participate when the replies received are from all types of technical men; executives, superintendents, engineers, and chemists. Please bring this inquiry to the attention of those qualified to contribute information of value. All who contribute to this inquiry will receive a complete transcript, in blank, of all the replies received. Send replies to

R. G. MACDONALD, Sec. TAPPI,
18 East 41st Street, New York.

Norwegians Discuss Tappi Pulp Test

In the *Papir Journalen*, No. 21,266, an article appears under the authorship of O. M. Halse, Kr. Morch, A. Borreson and S. Samuelson entitled, "Proposed Standard Method for Strength Testing Unbeaten Pulp." It is in general a criticism of the TAPPI method which has been proposed by the Association of American Wood Pulp Importers as an international standard method.

The Norwegian committee recommends that acceptance of the method as an international standard be deferred until Scandinavian mills have thoroughly proved its usefulness and reliability.

More definite information is required as to

1. Whether the method is for control or specification or both.
2. Whether wet or dry pulp is to be used and if the latter, what time of wetting is to be allowed before testing.
3. What types of pulp do the methods apply to?
4. More specific details of procedure in regard to sheet formation.
5. Duplicability of results on the same pulp in various mills and countries.

In regard to the foregoing it may be said that the new TAPPI Committee on Physical Standards under the chairmanship of H. A. Rothchild of the Kimberly-Clark Company is carrying on considerable cooperative work to bring this test to perfection. The Norwegian report refers to the initial strength test that has been tentatively formulated and published. As soon as more conclusive results have been obtained from the methods now being tried for determining ultimate strength of pulp there will be much less confusion with respect to the meaning and applications of the test.

At the Fall meeting of TAPPI, which will be held at Wausau, Wis., on September 25, 26 and 27, 1928, a progress report on strength testing will be made and at the next Annual Meeting it is hoped that a satisfactory method will be proposed that will receive the approval of the manufacturers and purchasers of wood pulp.

Paper Sack Manufacture

Tüten-, Beutel- und Papiersack-Fabrikation. (Paper bag and sack manufacture and the auxiliary trades), by Heinrich Thümmes, Sr. Second revised and enlarged edition. First volume. Berlin, Verlag der Papier-Zeitung, Carl Hofmann GmbH., 1928. 416 pages and about 200 illustrations. Price, 15 Rm (if both volumes are ordered together, 25 Rm).

The first edition of this work on the manufacture of paper sacks has long been out of print. In 1925, the author acceded to the requests of the publishers and those interested in this field of manufacture to prepare a revision; the results of these three years' work is now available in this first volume, which covers, not only the actual manufacture of bags and sacks, but the testing of the paper used, the various adhesives, the printing machines and inks, sizes and weights (both German and foreign) and other subjects. The completed work will deal with the whole subject from the receipt of the raw paper to the dispatch of the printed goods. Practically all of the machines illustrated and described are of German design.

The manufacture of paper bags is very widely distributed and is to be found even in remote country towns where help from practical machinists is not available. This work is therefore intended to prove a useful guide in difficulties. The manufacture of all kinds of bags, both plain and lined, and the machines used to produce them are minutely described, probable difficulties are stated and remedies indicated; the methods of printing, slitting and rereeling, punching and gumming are also treated.—C. J. WEST.

Pulp and Paper Man Wanted at Michigan

A vacancy has occurred in the chemical engineering staff of the University of Michigan. It is especially desired to have this position filled by a young man who has been trained in chemical engineering or who has advanced courses in chemistry, physics and mathematics. He should also have a good background of practical pulp and paper mill experience. At Michigan this man will have the grade of assistant professor and in addition to a basic salary of $2,500 per year he will have the opportunity of carrying on considerable work of a commercial nature which will enlarge his income.

Applicants should apply directly to Prof. Alfred H. White, Department of Chemical Engineering, University of Michigan, Ann Arbor, Mich.

Technical Men in New Positions

Galo Blanco has resigned his position as chemist of Du Pont Rayon Company, Buffalo, N. Y., and has taken a similar position with the Industrial Rayon Company, Cleveland, Ohio.

E. Ralph Hayes is now with the Canadian Cellulose Company at Cornwall, Ontario, after having spent a year with Celulosa Cubana in Tuinucu, Cuba.

Kurt W. Franke is now located at the Experimental Station of South Dakota State College, Brookings, S. D.

I. Gordon has gone with the Claremont Paper Company of Claremont, N. H., as mill chemist.

Leaves Kieckhefer Container Co.

THREE RIVERS. Mich., August 14, 1928.—D. E. Stowe has severed his connection as purchasing agent of the Kieckhefer Container Company and is succeeded by W. F. Costello who has been connected with the Bryant Paper Company for the past nine years.

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Cooperation Between Accountants and Bankers*

By William B. Campbell

It is a great pleasure to have the opportunity this evening of meeting the Cleveland Chapters of the Robert Morris Associates and of the American Institute of Accountants.

I have been asked to speak on the work of the committee on cooperation with bankers of the American Institute of Accountants in cooperation with the corresponding committee of the Robert Morris Associates.

Two years ago Frederick H. Hurdman, one of the members of the American Institute committee, spoke at a regional meeting of the American Institute in Cleveland on the same subject. I do not intend to repeat Mr. Hurdman's remarks on that occasion, but in summarizing our work for the benefit of the Cleveland members of the Robert Morris Associates some of the same ground may be covered.

The work of the two committees began more than five years ago. During the years immediately preceding 1922 the Robert Morris Associates had accumulated a record of instances in which the bank credit men criticized the work of public accountants in the certification of statements for credit purposes, and the first work of the Institute committee was an analysis of those cases. One of the main points raised by the credit men was that there did not seem to be any standard of verification followed by the accountants in their audits and that the certificate of one accountant might mean something very different from a precisely similar certificate given by another.

Same Question Discussed Previously

It developed that many of the bank men and many of the accountants either did not know or had forgotten that the same question had been discussed some five years previously by the federal reserve board and by the American Institute of Accountants, and that there had been put out by the federal reserve board a tentative program of audit of balance-sheets and profit-and-loss statements for credit purposes which had the approval of the American Institute.

The analysis of the cases accumulated by the Robert Morris Associates, to which I have referred, further developed the fact that, had this program of audit been followed by the accountants, the bankers in most instances would have had no cause for complaint. From that day to this our committee has never lost an opportunity of impressing upon the accountants the need for making this program of audit the minimum requirement of a verification of a balance sheet and statement of profit and loss for credit purposes.

It might be said at this point that the federal reserve board in the preface to the program of audit invited suggestions for its improvement in the following words:

"The federal reserve board, after conferences with representatives of the federal trade commission and the American Institute of Accountants, and a careful consideration of the memorandum in question, has accepted the memorandum given its provisional or tentative endorsement, and submitted it to the banks, bankers and banking associations throughout the country for their consideration and criticism.

"The recommendations in the memorandum apply primarily to what are known as balance-sheet audits. This is an initial step which may easily be succeeded by future developments tending still further to establish uniformity and covering more fully the field of financial statements."

No Constructive Suggestions Made

So far as I know, in spite of this invitation there have not been any constructive suggestions made to the board. Every accountant who has studied the program will testify that it is an excellent piece of work, and it has stood the test of actual practice over a period of many years. However, there are several respects in which this program might be improved, and in this relation I would draw your attention to a resolution presented at the fall meeting of the Robert Morris Associates, last October in Wernersville, Pennsylvania:

"There is constantly brought home to the Robert Morris Associates the very real service performed by the federal reserve board for accountants, business men and bankers in the publication several years ago of the pamphlet, *Approved Methods for the Preparation of Balance-Sheet Statements.* It has helped to standardize accounting methods, given business an accurate view of its own operation and enabled it to present the facts in a more intelligent manner to its bankers. There have been many changes in business practices since the first issue and we believe that the good work already done would be augmented by adequate revision in the light of present-day knowledge. We believe also that in any such revision the American Institute of Accountants should have an important part. It is therefore, resolved that the federal reserve board be urged to revise this pamphlet and to consult with the American Institute of Accountants to effect the most efficient result."

It would be premature to discuss at this time any changes in the program, but it is very interesting to read the acknowledgment by an organization of bankers of the value of the existing program of audit which our committee in season and out has urged upon the members of the accountancy profession.

* Reprinted from "The Journal of Accountancy," January, 1928, issue.

Work of Committees Continued

The work of the two committees has continued without interruption since they were first appointed and it may be of interest to you to know how they function. In the first place, the most important work we do, in my opinion, is the clearing up of misunderstandings and criticisms as they arise. The members of the Robert Morris Associates throughout the country refer any questions which they may have to the chairman of their committee in New York, and he in turn refers them to the Institute committee. They usually come to me as chairman of that committee and in many instances, in order to save time, I give my own tentative reply to the chairman of the bankers' committee, Harvey E. Whitney. The questions are subsequently taken up with the Institute committee or with the New York members of that committee, who can usually easily be reached, and if necessary a confirmatory or supplementary communication is made to Mr. Whitney. In some cases where the work of a particular accountant or firm of accountants has been questioned, an opportunity has been given them to present their view of the situation. In other cases the bankers have asked our committee for an expression of opinion as to the best accounting practice in particular cases which have come to their notice, without disclosing the name of the accounting firm or the name of the bank's customer involved, and our committee has endeavored to answer these questions as clearly as possible.

Many of the questions and answers were quoted by Mr. Hurdman in his paper some two years ago and from time to time have been quoted by Mr. Whitney in his reports to the Robert Morris Associates. Mr. Whitney's reports are, of course, available in the monthly *Bulletin*, which you have read. However, to give you some idea of the types of questions with which we deal I would like to quote one or two of the more recent communications between the two committees.

A Recent Communication

In a recent communication received from Mr. Whitney he submitted a statement received by him from one of his members in which an accountant, a member of the American Institute of Accountants, had signed a balance-sheet including all of the assets other than cash and good-will, etc., under one caption with the following wording:

"Notes and accounts receivable from customers, officers and employees, etc., merchandise stocks on hand, securities, real estate, buildings, equipment and personal property located in thirty-one cities, $25,000,000."

The American Institute's reply was:

"The first comment which I should naturally make is that which you anticipated—that it is unfair to blame the accountant any more than the borrower or the lender for the existence of such a credit statement. A further comment which occurs to me, is of broader character. Probably the borrower, the lender and the accountant all felt that the position of this particular concern was so strong that no real credit risk was involved. Consciously or unconsciously they perhaps regarded this as relieving the concern from the ordinary requirements of a proper financial statement; otherwise there would be no possible justification of the combination of heterogeneous assets in one total of $25,000,000.

"Such an attitude is not uncommon. In much the same way you will find prospectuses, issued by houses of the very highest standing, which fall far short of conforming to the standards commonly set for houses of lower standing. One view of such cases is, that the houses in question assume a correspondingly greater responsibility and that the investor is asked to buy on their reputation rather than on the specific information presented. From the point of view of our committees, however, it would be far preferable if all concerns in the highest class, whether bankers, commercial corporations, accountants or others, would apply in such cases the theory of 'noblesse oblige' and adopt a procedure which does not depend for its justification on their own standing but which would be equally satisfactory in the case of concerns whose reputation has not been established."

Another communication from the Robert Morris Associates read:

"I have just received a letter from one of the members of the Robert Morris Associates from which I will quote as follows:

" 'There have just recently come to my attention very interesting remarks on the part of a local auditing firm here in connection with a detailed report covering a certain financing concern. For your consideration I should like to quote a number of these remarks:

" ' "It is apparent that the funds of the company have been fully employed during the year.

" ' "The ratio of current assets to current liabilities is 6.00 to 1.00—*indicating a very strong position financially.*"

" 'The report ends by saying:

" ' "The company was chartered during the year 1922, but operations did not begin till the year 1923. It is well known that the cost of transacting business by a new company is greater in proportion to the income of the company, than that of an old established organization. This is true of the ——, yet it can be seen that the company has done well, and as it is now engaged in making loans which are very satisfactory from the standpoint of capital turnover and earnings, its growth should be more marked in the future than it has been in the past. It is apparent also, that a larger amount of capital could be employed very profitably, for though it would afford a larger income, yet it would entail little if any additional expense."

" 'It occurs to me that the real purpose of an audit is to give a complete picture of the business as the auditor finds it, in so far as the facts and figures are concerned. It seems to me, however, that the remarks quoted above have no place in any auditor's report. They represent conclusions, the expression of which is entirely outside the field of the public accountant. One gets the impression upon reading the report that the auditor, in addition to his actual findings is attempting to recommend the company to the favorable consideration of the reader. Does it not strike you that this materially weakens the report?' "

The Reply

To this inquiry the American Institute replied as follows:

Replying to your letter of February 14th, it seems to me that there must be a line drawn between an auditor's certificate intended for general circulation and a report which may possibly have been prepared for a special purpose.

"It is axiomatic that an auditor's certificate or a report upon an audit should not indulge in forecasts but should be confined to a statement of the auditor's opinion upon the correctness of the accounts which he has examined. A detailed report, however, may be prepared for a variety of purposes and may possibly have been prepared by an accountant as an 'accountant' and not as an 'auditor.' It frequently happens that an accountant is asked by business or financial interests to make a general financial investigation of a concern and to give his opinion to the business man or financier to enable them to decide as to the profit-making possibilities of a concern. Of course, such reports are usually confidential and are not prepared for the information of anyone except the parties immediately interested. A great many accounting firms are asked to make such reports but it is usually understood that these reports are not to be regarded as 'certificates.' Such an opinion is given by the accountant as a business man and not as a professional auditor, and he should not put himself in the position of being quoted in his professional capacity regarding the subject matter of such an investigation.

"I feel, and I am sure that our committee will agree with me, that the accountant's responsibilities in the two types of work referred to are entirely different and the accountant's certificate as an auditor and his report as a financial investigator should be kept entirely separate and distinct. I am not sure from the ex-

tract you quote from your correspondent's letter as to which type of report he saw, but I would regard an accountant as unwise who included in an audit report a paragraph such as you have quoted, if that is what has been done. On the other hand, he may have been justified in including it in a report made for a specific purpose."

The two committees down to date have done a great deal of valuable work both for the bankers and for the accountants. There is, however, a great deal yet to be done. The American Institute has in hand several pieces of constructive work regarding the classification of accountants' services and certificates which will tend to a still better understanding of their work by the bankers and other interested parties.

Some of the Main Points

With this brief review I would like to say something about some of the main points on which the commercial bankers and the accountant may have slightly different views. The commercial banker is apt to look at all balance sheets and profit-and-loss accounts and the accompanying accountants' certificates from the credit viewpoint, and where only a balance-sheet and profit-and-loss account accompanied by a short certificate are given he may feel there are sometimes facts he should know which are not disclosed in those accounts.

Where the accountant is instructed to make an examination for credit purposes and is asked to present a detailed report upon his examination, then, of course, the banker should receive in the accountant's report all the information which he needs to supplement the borrower's own statement. It frequently happens, however, that the accountant is asked to audit the accounts of a concern where there is no indication that his work will be presented to a credit man of a banking institution as a basis of credit and he is frequently asked to prepare only a short certificate to the accounts and is specifically informed that a lengthy detailed report in cases where a certified statement is required for submission to a large group of stockholders. In such a case the accountant should follow in his audit the procedure laid down in the federal reserve bulletin, to which reference has already been made, and if he gives an unqualified certificate the banker is entitled to assume that he has done so and is thoroughly satisfied as to the correctness of the accounts which he has certified. In such a case, however, the banker to whom the statement is presented as a basis for credit should ask his customer to permit the accountant to talk to him freely about the accounts. I have known of many cases where in such circumstances the bank credit departments have, without the knowledge of their customer—or prospective customer—approached the accountant and asked him to discuss his client's accounts. The relation between the accountant and his clients, is, of course, a confidential one and the accountant would be violating this confidence if he should discuss his client's affairs without permission. The accountant, therefore, almost invariably asks the banker first to obtain the permission of his customer and says he will then be only too glad to discuss the accounts. If the banker does so, the accountant will be able to give him a great deal of information and atmosphere which could not possibly be conveyed in the balance-sheet as at a given date and in the usual summarized profit-and-loss account.

Accountant Frequently Criticized

The accountant is frequently criticized for the form of the statements to which his certificate is attached. The critic must always bear in mind, however, that, technically, the statements are the statements of the client, and while the accountant may not regard the form of presentation as an ideal one, nevertheless he can not make any very strenuous protest if the cardinal principle has been followed that every material fact should be disclosed in the statement and if sufficient information has been given for the reader to place his own construction upon any debatable item.

For instance, it sometimes happens that such items as "tools" or "dies," while generally regarded by the accountant as well as by the banker as capital assets, may in a particular case be claimed by a client as more in the nature of current assets, since they may be used in current production in a comparatively short period of time (say two or three months) and the cost recovered through manufacture and sale of the ultimate products. In such a case, if the client is willing to show the item separately in the balance-sheet, even if he insists upon calling it a current asset, the accountant can hardly refuse to sign the accounts.

Similarly, the accountant is not particularly concerned whether notes receivable discounted are shown in a balance-sheet as a contingent liability or whether they are shown on both sides of the balance-sheet as current assets and liabilities so long as the fact is disclosed in one form or the other.

The basis of valuation upon which the capital assets of a company are stated in the balance-sheet is another point upon which some difference of opinion may exist. Some companies for one reason or another have restated their capital assets upon the basis of appraised valuations instead of on the basis of original cost. The accountant can not object to such a statement, but he should insist where such a valuation is a material fact in the accounts that the basis of valuation of capital assets should be shown.

A company may own 100 per cent of the stock of a subsidiary company, which in turn may have substantial indebtedness. The value of the parent company's equity depends to some extent upon the nature and amount of such indebtedness. The accountant may consider in a particular case that a disclosure of the situation should be made in the accounts. He is not particularly interested in the form in which such disclosure is made. It may be by the consolidation of the accounts of the two companies, it may be by the presentation of separate balance-sheets—one for the parent company and one for the subsidiary—or it may be by a footnote on the parent company's balance-sheet showing the composition of the parent company's equity in the subsidiary company's assets.

The Important Point

The important point is that the accountant can not refuse his client the choice of legitimate alternatives so long as all of the facts are shown. If the client refuses to adopt one of these alternatives but insists upon a statement which the accountant regards as failing to disclose the true situation, then, of course, the accountant must qualify his certificate. This makes it imperative for a bank credit man, who relies upon accounts accompanied by a short certificate, to read carefully both the accounts and the certificate.

It has been suggested that accountants should refuse to give any certificate if they can not give unqualified ones, but this is a suggestion which is hardly practicable or fair to the client. Until an audit is completed the accountant does not know whether or not he can give an unqualified certificate, and it would surely be unjust to refuse to give the client some report or certificate upon the accounts qualifying the certificate in respect of such points as could not be agreed upon.

This does not mean that the accountant likes a qualified certificate any more than the banker does. The best accountants look upon a qualified certificate with distaste, but frequently in justice to their client and themselves there is no alternative.

Incidentally, it has been frequently stated that bank credit men should not be satisfied with a short certificate but should receive a detailed report upon the accounts which are presented to them. I would, however, like to draw your attention to the wording of the federal reserve bulletin with regard to the accountant's certification which appears on page 23 of that document in the following language and, you will observe, recognizes and in fact recommends a short form of certificate:

"The balance-sheet and certificate should be connected with the accounts in such a way as to ensure that they shall be used only conjointly. This rule applies also to any report or memorandum containing any reservations as to the auditor's responsibility; any

qualification as to the accounts, or any reference to facts materially affecting the financial position of the concern.

"The certificate should be as short and concise as possible, consistent with a correct statement of the facts, and if qualifications are necessary the auditor must state them in a clear and concise manner.

"If the auditor is satisfied that his audit has been complete and conforms to the general instructions of the federal reserve board, and that the balance sheet and profit-and-loss statement are correct, or that any minor qualifications are fully covered by the footnotes on the balance-sheet the following form is proper:

"'I have audited the accounts of Blank & Co., for the period from —— to —— and I certify that the above balance-sheets and statement of profit and loss have been made in accordance with the plan suggested and advised by the federal reserve board and in my opinion set forth the financial condition of the firm at —— and the results of its operations for the period.

"'(Signed) A. B. C.'"

A Second Point of Difference

A second point of difference of opinion between the banker and the accountant frequently arises with respect to the information which is included in the certified accounts. Some bankers take the position that there should be shown such items as the amount of purchase commitments of their customers, particularly in industries which are subject to sudden price changes, as, for instance, the rubber industry. Most of their customers, however, would strongly object to showing such an amount in certified accounts which are presented to the public generally, and the accountant's position is that if he has satisfied himself that the purchase commitments are not above the current market, or are covered by firm sales orders, accounting and commercial practice do not require any reference to the purchase commitments in the certified accounts.

Incidentally, I may say that the item of commitments is one which is not covered as fully as it might be in the federal reserve bulletin audit program. The point became really acute in the lives of accountants of the present generation in the post-bellum adjustment period of 1920-1921, some years after the federal reserve bulletin was published.

Another case falling under this head is the question of whether or not the accountant should disclose in his certified accounts such facts as the action of a president of a company in obtaining during the fiscal year large advances from the company which are repaid before the end of the year and possibly reborrowed after the end of the year and after the annual statement has been prepard and certified. The accountant's position in such a case is a somewhat delicate one, and when the point was raised recently with our committee we took the position that if the fact was a really material fact in the financial position of the concern, it would have to be referred to in the accountant's certificate, or, alternatively, he would refuse to give any certificate.

Judgment and Skill Required

It is in the settlement of such points as these that judgment and skill are required. It is obvious that it would be possible for an accountant who did not possess these qualifications to do an irreparable injury to the credit and, incidentally, to the innocent stockholders of a sound and prosperous concern.

Last, the bankers sometimes disagree with the extent to which an auditor has verified the accounts of his client. The banker would naturally like the accountant to verify in every way possible every item in the balance-sheet and profit-and-loss account and to assume full responsibility for having done so. From a practical viewpoint, however, this is impossible. I would like to draw your attention to the following paragraph from the report of the chairman of the committee on cooperation with public accountants presented at the Wernersville, Pennsylvania, meeting of the Robert Morris Associates in October:

"We hear rumblings off and on from the accounting fraternity in the form of articles, speeches, etc., indicating an attitude of aloofness and irresponsibility so far as concerns the inventory item. This is too comprehensive a subject to be dealt with at length in a report of this committee, but speaking by and large it is our firm conviction that as time goes on, accountants should be held to a greater rather than a lesser responsibility as concerns this very important item, and it behooves us all to work towards this end, which we should do not only with the accountants, but with our customers as well."

Some bankers have gone even further than this and suggested that the responsibility for the taking of physical inventories should be placed on the accountant. Long experience, however, has shown the accountant that the instances in which he is qualified to take a physical inventory are few, and if the bankers in granting credit should rely entirely upon physical inventories taken by public accountants they would be resting in a false sense of security. Undoubtedly there are some cases where an accountant is fully as capable of taking a physical inventory as anyone else, but these cases are in the minority.

Hardly a Practical Suggestion

The suggestion regarding physical inventories is hardly a practicable one since at the present time there are not enough qualified accountants to carry out the accounting work which is offered to the profession, and even if the added work could properly be said to come within the scope of an accountant's duties the accountants could not find the necessary staffs. The taking of physical inventories in most modern industrial and commercial businesses requires the services of a very large number of people for a few hours or days once in six months or once a year, and it would manifestly be impossible for an accountant to take the inventories of any substantial number of his clients. Further, it would not be possible for the accountant to carry on his staff men having sufficient technical knowledge of materials and products to identify the items in every physical inventory. I would like to ask how many of you think that accountants possess the knowledge to go through the inventory of a jeweler, for instance, and be sure that the diamonds, rubies, emeralds, etc., which are shown to them are actually genuine stones of a certain weight and quality? Do you think the same men could take the inventory in a department store with its thousands of items, that of a silk mill with its different grades of expensive raw material and with finished products depending for their salability largely upon fashion, or that of a chemical company where strange substances would be presented for inspection?

On the other hand, however, it must be made clear that the accountant does not endeavor to avoid a proper responsibility with respect to the inventories of commercial and industrial enterprises. In the first place, the accountant must be satisfied that there is a reasonably good accounting system in use and if possible a perpetual inventory system which shows all receipts and issues of materials. He must also satisfy himself that the book records are checked periodically by actual physical inventories and that these physical inventories are carefully taken by responsible employees who certify to the accuracy of their count and if necessary make sworn statements to that effect. The accountant should also verify thoroughly the valuation of the items in the inventory to satisfy himself that they are taken at cost or market, whichever is the lower, and, further, should satisfy himself that the inventory is accurate from a clerical viewpoint. The skilled professional accountant can also apply a large number of other tests to the inventory to insure that it is not overstated.

He should also take particular care to see that no obsolete or slowly moving stock is included in the inventory except at appropriately discounted values, and this can almost invariably be done if the client's records are properly kept.

The Really Astonishing Thing

The astonishing thing is not that there are so many overstatements of inventories in commercial practice but that there

are so few. It would surprise most people if they knew the number of cases, which never come to their notice, in which the inventories have been adjusted as a result of the accountant's work. The credit men merely see accounts which contain the inventory item finally agreed upon by the accountant. They do not know how much that item has been adjusted as a result of his work. Furthermore, it may interest you to know that in my experience the grossest cases of misrepresentation of inventories have been in respect of inventories which were physically taken by or under the supervision of outside experts. One of the most serious cases I remember was that of an automobile company which had included in its inventory a large amount of parts which when assembled would not produce a marketable automobile. The inventory in this case was checked by the staff of another automobile concern which, as I recall it, gave a clean bill of health in regard to the usability of the material. If such an over-statement could take place in an inventory checked by independent experts in the same line of business, how could an accountant be expected to discover it?

Before leaving this subject, I do not wish you for one moment to think that I am endeavoring to minimize the responsibility of the accountant with regard to the inventory item. There is a great deal of work that he can do to assure himself that the inventory is correct from every viewpoint, and if he does not use every reasonable precaution he can properly be accused of negligence.

The outline of inventory verification in the federal reserve bulletin is representative of the best practice of inventory verification by accountants at the present time.

Another Point of Difference

Another point of difference between the banker and the accountant arises in the form in which the statement of profit and loss is presented to the banker. In a Balance-Sheet audit the accountant, of course, verifies the profit-and-loss account for the period under review in the manner outlined in the federal reserve programme, and in that programme is presented a standard form of profit-and-loss account. In accounts which are prepared primarily for presentation to the stockholders and are available to the public at large, it frequently happens that clients take the position that too much information is presented in this form of statement and that this information may be used to their detriment by competitors. It is therefore, customary in statements prepared for wide circulation, to give only a very condensed statement of profit and loss. Where such a statement is submitted to a bank credit man for credit purposes, in this case also he should ask his customer for a more detailed statement. The accountant, of course, can not give it without his client's permission. It might be well, however, to say that even in a condensed statement of profit and loss extraordinary profits which do not arise from the year's operations should be shown as separate items, or it should be indicated in the statement that such extraordinary items have been included in the profits.

In the time at my disposal it is, of course, impossible to cover the ground completely, but I have endeavored to give you some idea of the way in which our committee is functioning and of the questions between the two committees with regard to which we are trying to find common ground.

Two Much Standardization

In concluding, I may say that while I am in hearty agreement with the adoption of the minimum standard of verification of balance-sheets for credit purposes, such as that outlined in the federal reserve bulletin, I am strongly opposed to too much standardization in the accountant's work. Standardization carried to the extreme would leave no room for the exercise of initiative and judgment by the trained professional accountant in carrying out his work, and the business community, including the bankers, would be the losers.

I would like to place on record my appreciation of the spirit in which the accountants have been met by the bank credit men since the present movement for closer cooperation between the accountants and credit men was inaugurated. I have derived a great deal of pleasure and profit from my contacts with the bankers. The Robert Morris Associates Committee on cooperation with public accountants and its chairman, Mr. Whitney, have always met us in the fairest possible way.

To Handle Suction Box Covers

The Emerson Manufacturing Company, of Lawrence, Mass., has acquired the exclusive sales agency for the "End-of-Grain" Suction Box Covers manufactured by the Carpenter Wood Products Company, of Bellows Falls, Vt. This suction box cover is made in two styles for "wire boxes" and "felt boxes," and is considered an improvement over the old style prepared maple plank suction box cover. It is made with two aluminum side rails which are screwed to the top flanges of the suction box. Between these rails are inserted diagonally wooden sections from selected Vermont rock maple with the grain of the wood upright. The wooden sections are then locked in place by an end screw.

All covers are made of uniform thickness (1¼ inch) unless otherwise specified, and the slots in the wooden sections of the wire covers are diagonally spaced and staggered to prevent streaking of paper. On felt covers the slots are one inch wide, five inches long, spreading diagonally from a triangular center piece towards the ends. This arrangement of slots has a tendency to spread the felt, keeping it clean and giving it a slightly wider and better sheet. Due to increased suction surface the result is a rapid formation of the sheet requiring fewer boxes and less suction pressure. Due to the diagonal shape of the slots, pulp which works through the wire will not cling to and clog up the holes of the cover, thus eliminating the need of cleaning or washing out the cover. The life of the wire is safeguarded by the elimination of grit usually found in metal or composition covers.

The first installation of this type of suction box cover requires no more time than that of the old style plank cover. Replacement is very simple as the new "End-of-Grain" wooden sections are merely slipped into place between the side rails which are not removed from suction box after once being screwed into place.

Because of the slower wear, planings of this cover are less frequent, thereby eliminating removal of boxes and the cause of other delays.

There is one very essential feature necessary in handling of these boxes, and that is if they are not immediately set up and put into use, they should be immediately immersed in water or placed under the "wet end" of the machine so as to prevent their warping or shrinking which they are likely to do if allowed to dry out.

There are approximately 100 mills which have already installed this Carpenter "End-of-Grain" suction box cover.

News of the Holyoke District

HOLYOKE, Mass., August 7, 1928.—Edward H. Sussenguth for the past three years manager of the mill and office of the Parsons Division of the American Writing Paper Company, has been transferred to the sales department of the company. On occasion of his leaving the mill and office employees presented him with a set of golf clubs and leather golf bag.

Cortland Field Bishop of New York and Lenox has given $2,500 for the Pittsfield airport fund increasing it to $37,000. Winthrop M. Crane and Z. Marshall Crane of the Crane Paper Mills have each contributed a like sum, also the Berkshire Eagle Publishing Company. The goal of $40,000 is in sight.

Little Eleanor Holden, 4½ year old daughter of Mr. and Mrs. Spencer M. Holden died at the home of her parents on Princeton street, Holyoke, Mass., July 29. Mr. Holden is the Southern representative for the Crocker-McElwain Company and Chemical Paper Manufacturing Company.

COST SECTION

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 11, 1928

SUMMARY

Cigarette paper	135 cs.
Wall paper	8 bls., 5 pkgs., 4 cs.
Paper hangings	12 bls., 37 pkgs., 33 cs.
News print	721 rolls
Printing paper	90 rolls, 42 cs.
Wrapping paper	2 cs.
Packing paper	17 cs.
Filter paper	20 cs.
Drawing paper	76 cs.
Tracing paper	2 cs.
Writing paper	23 cs.
Decalcomania paper	9 cs.
Colored paper	15 cs.
Baryta coated paper	126 cs.
Coated paper	10 cs.
Surface coated paper	249 cs.
Metal paper	8 cs.
Gold coated paper	12 cs.
Photo paper	5 cs.
Pergamyn paper	21 cs.
Stencil paper and ink	51 cs.
Tissue paper	44 cs.
Cover paper	2 cs.
Crepe paper	2 cs.
Silk paper	15 cs.
Envelopes	1 cs.
Straw board	457 rolls, 4 bls.
Miscellaneous paper	78 bls., 259 cs.

CIGARETTE PAPER

The Surbrug Co., Schodack, Havre, 20 cs.
British American Tobacco Co., Suffren, Havre, 54 cs.
P. J. Schweitzer, Pres. Hayes, Marseilles, 61 cs.

WALL PAPER

F. J. Emmerich, New York, Hamburg, 5 pkgs.
F. J. Emmerich, Minnewaska, London, 1 ble.
F. J. Emmerich, Celtic, Liverpool, 3 bls.
J. E. Bernard & Co., Pennland, Antwerp, 1 cs., 2 bls.
F. & R. Trading Co., Pennland, Antwerp, 1 cs.
A. C. Dodman, Jr., Inc., Olympic, Southampton, 2 cs.
A. C. Dodman, Jr., Inc., Mauretania, Southampton, 2 bls.

PAPER HANGINGS

A. C. Dodman, Jr., Inc., Samaria, Liverpool, 3 bls., 2 cs.
American Exchange Irving Trust Co., Suffren, Havre, 37 pkgs.
W. H. S. Lloyd & Co., Minnewaska, London, 10 bls., 8 cs.
Whiting & Patterson Co., Inc., Minnewaska, London, 14 cs.
Whiting & Patterson Co., Inc., Olympic, Southampton, 9 cs.

NEWS PRINT

Perkins Goodwin & Co., Westphalia, Hamburg, 369 rolls.
Guaranty Trust Co., Gripsholm, Gothenburg, 244 rolls.
O. Ray, Gripsholm, Gothenburg, 108 rolls.

PRINTING PAPER

Judson Freight Forwarding Co., Karlsruhe, Bremen, 8 cs.
Martin & Bechtold, Karlsruhe, Bremen, 11 cs.
Keuffel & Esser Co., New York, Hamburg, 90 rolls.
Hensel, Bruckman & Lorbacher, Burgerdyk, Rotterdam, 5 cs.
C. Steiner, Burgerdyk, Rotterdam, 2 cs.
E. Dietgen & Co., Westphalia, Hamburg, 11 cs.
J. Henschel & Co., Inc., Westphalia, Hamburg, 5 cs.

WRAPPING PAPER

Birn & Wachenheim, Pennland, Antwerp, 2 cs.

PACKING PAPER

American Shipping Co., Burgerdyk, Rotterdam, 4 cs.
Haule Wax Paper Manfg. Co., Westphalia, Hamburg, 13 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Tuscania, London, 20 cs.

DRAWING PAPER

Keuffel & Eser Co., New York, Hamburg, 67 cs.
Globe Shipping Co., Columbus, Bremen, 9 cs.

TRACING PAPER

Keuffel & Esser Co., New York, Hamburg, 2 cs.

WRITING PAPER

American Express Co., Schodack, Havre, 1 cs.
Freedman & Slater, Westphalia, Hamburg, 7 cs.
Guibout freres, Paris, Havre, 5 cs.
Coenca Morrison Co., Paris, Havre, 1 cs.
B. Altman & Co., Olympic, Southampton, 9 cs.

DECALCOMANIA PAPER

L. A. Consmiller, Karlsruhe, Bremen, 10 cs.
C. W. Sellers, New York, Hamburg, 6 cs.
L. A. Consmiller, Columbus, Bremen, 11 cs.
B. F. Drakenfeld & Co., Samaria, Liverpool, 10 cs. (duplex).
B. F. Drakenfeld & Co., Samaria, Liverpool, 22 cs. (simplex).

COLORED PAPER

S. Gilbert, Karlsruhe, Bremen, 15 cs.

BARYTA COATED PAPER

Globe Shipping Co., Karlsruhe, Bremen, 126 cs.

COATED PAPER

Globe Shipping Co., New York, Hamburg, 10 cs.

SURFACE COATED PAPER

Whiting & Patterson Co., Inc., New York, Hamburg, 8 cs.
Globe Shipping Co., New York, Hamburg, 43 cs.
P. C. Zuhlke, Pennland, Antwerp, 63 cs.
Gevaert Co. of America, Pennland, Antwerp, 135 cs.

METAL PAPER

Hensel, Bruckman & Lorbacher, Columbus, Bremen, 8 cs.

GOLD COATED PAPER

F. Murray Hill, Columbus, Bremen, 12 cs.

PHOTO PAPER

J. J. Gavin, Samaria, Liverpool, 3 cs.
Medo Photo-Supply Co., Minnewaska, London, 2 cs.

PERGAMYN PAPER

Central Union Trust Co., New York, Hamburg, 18 cs.
Quality Art Novelty Co., New York, Hamburg, 3 cs.

STENCIL PAPER AND INK

Arlac Dry Stencil Co., New York, Hamburg, 51 cs.

TISSUE PAPER

Old Master Paper & Pulp Co., New York, Hamburg, 42 cs.
G. W. Sheldon & Co., Minnewaska, London, 2 cs.

COVER PAPER

International Forwarding Co., New York, Hamburg, 2 cs.

CREPE PAPER

Phoenix Shipping Co., New York, Hamburg, 2 cs.

SILK PAPER

Meadows, Wye & Co., Burgerdyk, Rotterdam, 11 cs.
Whiting & Patterson Co., Inc., Burgerdyk, Rotterdam, 4 cs.

ENVELOPES

H. Reeve Angel & Co., Inc., Tuscania, London, 1 cs.

STRAW BOARD

American Express Co., Burgerdyk, Rotterdam, 4 bls.
Perkins Goodwin & Co., Burgerdyk, Rotterdam, 220 rolls.
A. Vuyk, Burgerdyk, Rotterdam, 237 rolls.

MISCELLANEOUS PAPER

G. W. Sheldon & Co., Mauretania, Southampton, 2 cs.
Kolesch & Co., Innoko, Rotterdam, 6 cs.
P. H. Petry & Co., New York, Hamburg, 3 cs.
Lampert & Son, Suffren, Havre, 5 cs.
Standard Products Corp., Suffren, Havre, 4 bls., 105 cs.
Coenca Morrison Co., Suffren, Havre, 4 cs.
Judson Freight Forwarding Co., Burgerdyk, Rotterdam, 12 cs.
Heemsoth Basse & Co., Burgerdyk, Rotterdam, 10 bls.
Wilkinson Bros. & Co., Inc., Gripsholm, Gothenburg, 24 cs.
H. Reeve Angel & Co., Inc., Gripsholm, Gothenburg, 26 bls.
E. H. Sergeant & Co., Gripsholm, Gothenburg, 9 cs.
Globe Shipping Co., Rochambeau, Havre, 4 cs.
Vail Ballou, Inc., Rochambeau, Havre, 38 bls.
Standard Products Corp., Rochambeau, Havre, 40 cs.
Coenca Morrison Co., Rochambeau, Havre, 4 cs.
Keller Dorian Paper Co., Paris, Havre, 13 cs.
Standard Products Corp., Paris, Havre, 28 cs.

RAGS, BAGGINGS, ETC.

A. H. Searle, Inc., London Corp., London, 287 bls. rags.
Chemical National Bank, Karlsruhe, Bremen, 132 bls. bagging.
Whaling Waste Products Corp., Karlsruhe, Bremen, 20 bls. rags.
Castle & Overton, Inc., Karlsruhe, Bremen, 8 bls. waste.
B. D. Kaplan, Karlsruhe, Bremen, 6 bls. rags.
T. D. Downing & Co., Transylvania, Glasgow, 45 bls. paper stock.
G. M. Graves Co., Transylvania, Glasgow, 35 bls. rags.
D. Galloway, Inc., Transylvania, Glasgow, 34 bls. rags.
C. R. Spence & Co., Transylvania, Glasgow, 75 bls. bagging.
A. W. Fenton, Inc., New York, Hamburg, 55 bls. rags.
Castle & Overton, Inc., Schodack, Havre, 40 bls. rags.
Castle & Overton, Inc., Schodack, Havre, 63 bls. bagging.
W. Steck & Co., Schodack, Havre, 197 bls. jute waste.
B. D. Kaplan, Schodack, Havre, 7 bls. rags.
V. Galaup, Schodack, Havre, 107 bls. rags.
M. Snedeker Corp., Schodack, Havre, 69 bls. paper stock.
Amtorg, Ltd., Burgerdyk, Rotterdam, 180 bls. rags.
J. Rosenburg, Burgerdyk, Rotterdam, 97 bls. bagging.
Van Oppen & Co., Burgerdyk, Rotterdam, 26 bls. rags.
J. Cohen Son & Co., Burgerdyk, Rotterdam, 2 bls. new cuttings.
Leigh Textile Co., Burgerdyk, Rotterdam, 106 bls. cotton waste.
P. Berlowitz, Burgerdyk, Rotterdam, 62 lbs. rags.
C. H. Dexter Sons, Inc., American Shipper, London, 34 bls. rags.
Darmstadt, Scott & Courtney, Ala, Antwerp, 18 bls. thread waste.
Castle & Overton, Inc., Ala, Antwerp, 49 bls. bagging.
Chase National Bank, Fred. VIII, Copenhagen, 27 bls. rags.
Chase National Bank, Fred. VIII, Copenhagen, 68 bls. flax waste.
1st National Bank of Boston, The Lambs, Constantinople, 160 bls. rags.
E. J. Keller Co., Inc., Suevier, ——, 142 bls. rags.
W. Schall & Co., Suevier, Antwerp, 176 bls. flax waste.
Bank of The United States, Westphalia, Hamburg, 46 bls. rags.
American Exchange Irving Trust Co., Westphalia, Hamburg, 46 bls. threads.
State Bank & Trust Co., Westphalia, Hamburg, 41 bls. threads.
E. J. Keller Co., Inc., Westphalia, ——, 19 bls. rags.
Castle & Overton, Inc., Innoko, Rotterdam, 189 bls. rags.
Darmstadt, Scott & Courtney, Innoko, Rotterdam, 110 bls. rags.
G. W. Millar & Co., Innoko, Rotterdam, 338 bls. rags.
E. J. Keller Co., Inc., Innoko, ——, 270 bls. rags.
E. J. Keller Co., Inc., Stuart Prince, ——, 113 bls. rags.
Castle & Overton, Inc., Stuart Prince, Scotland, 79 bls. thread waste.
Banco Com'l Italiane Trust Co., Corson, Leghorn, 129 bls. rags.
W. Steck & Co., McKeesport, Havre, 5 bls. jute waste.
E. J. Keller Co., Inc., McKeesport, ——, 185 bls. flax waste.
Banco Com'l Italiane Trust Co., Tagliamento, Naples, 161 bls. rags.
E. J. Keller Co., Inc., Tagliamento, ——, 52 bls. bagging.

OLD ROPE

W. Schall & Co., New York, Hamburg, 52 coils.
Brown Bros. & Co., Burgerdyk, Rotterdam, 34 bls., 58 coils.
N. E. Berzen, Gripsholm, Gothenburg, 177 bls.
Brown Bros. & Co., McKeesport, Havre, 108 coils.
Brown Bros. & Co., Juan Sebastian Elcano, Coruna, 70 bls.
E. J. Keller Co., Inc., Tagliamento, ——, 194 bls.

CASEIN

Equitable Trust Co., New York, Hamburg, 526 bags, 26,082 ks.
Equitable Trust Co., Suffren, Havre, 277 bags.
Equitable Trust Co., McKeesport, Havre, 512 bags, 25,000 ks.
National City Bank, E. Frissel, Buenos Aires, 250 bags, 15,000 ks.

WOOD PULP

Pagel, Horton & Co., Inc., Schenectady, Hornefors, 300 bls. sulphite, 50 tons.

(*Continued on page 72*)

NEW!!

Featured in the above catalog, Paper Mill executives will find many helpful suggestions for applying Bristol's Liquid Level Recording Instrument equipment. For example, to provide a constant check, right in the mill, of water levels being maintained in distant reservoirs, lakes, rivers, tanks, etc.; and the levels of pulp or special process liquids in storage.

Also, where water power is used, the chart record of water levels aids in securing a uniform apportionment, and many times is the means of preventing costly litigation. As one plant engineer remarks: "To accurately determine the uniformity of apportionment at our plant on the Fox River in Wisconsin we installed Bristol's Recording Liquid Level Gauge equipment. These water level instruments both indicate and record head and tail water levels maintained and enable us to produce at any time authentic records as to water used."

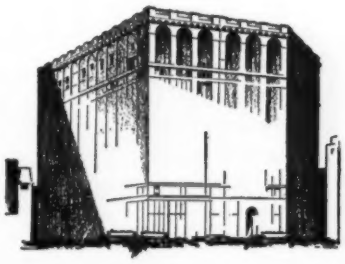
Showing method of installing on side of stream to record height of water.

Other items of interest include: Numerous recent installations, showing Bristol's equipment in actual use—charts, (both round and strip types), showing the kind of record secured—a representative listing of various types of instruments available—illustrations and description showing method of using Bristol's Long Distance Transmitting and Recording System—Electrical Water Level Recorder for recording Boiler water level—Automatic Electric Alarm Attachment—etc., etc.

Send us the names of interested persons in your plant, and we will be pleased to mail them a copy.

The Bristol Company

Waterbury, Connecticut



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From every section of America, and from foreign countries, buyers come to the Fifth Avenue Building. Because in this building, on one buying trip, they can fill the greater part of their seasonal requirements. The offices and display rooms of leading manufacturers are to be found here. Men's wear, women's wear, fabrics, gloves, gifts, toys, novelties, pottery, paper and kindred lines are represented.

The Fifth Avenue Building is accessible from any part of the city. Buses and surface cars pass the door. Two elevated lines are nearby. It is ten minutes by subway from the Pennsylvania Station, thirteen from Grand Central. It is a few minutes from the shopping district in one direction, from the financial district in another.

THE FIFTH AVENUE BUILDING

Broadway and Fifth Avenue, at Madison Square, New York

"More than an office building"

Imports of Paper and Paper Stock

(*Continued from page 70*)

Perkins Goodwin & Co., Schenectady, Obbola, 7,700 bls. sulphate, 1,100 tons.
Castle & Overton, Inc., Burgerdyk, Rotterdam, 401 bls. wood pulp.
Polaris Shipping Co., Vorma, Sonora, 720 cords wood pulp.
Chemical National Bank, Svanhild, Oslo, 360 bls. sulphite.
Perkins Goodwin & Co., Svanhild, Oslo, 125 bls. sulphite.
International Accep. Bank, Stavangerfjord, Oslo, 800 bls. sulphate.
Chemical National Bank, Stavangerfjord, Oslo, 600 bls. sulphite.
Atterbury Bros., Inc., Stavangerfjord, Oslo, 1,000 bls. wood pulp.
Castle & Overton, Inc., Westphalia, Hamburg, 187 bls. wood pulp, 28 tons.
Scandinavian Pulp Agency, Inc., Gripsholm, Gothenburg, 2,032 bls. kraft pulp.
Johanson, Wales & Sparre, Inc., Gripsholm, Gothenburg, 300 bls. dry soda pulp.
E. M. Sergeant & Co., Gripsholm, Gothenburg, 897 bls. dry soda pulp.
Price & Pierce, Ltd., Gripsholm, Gothenburg, 250 bls. wood pulp.
G. S. Kerr, Dampfire, St. Peters, 1,285 cords wood pulp.
Castle & Overton, Inc., New York, Hamburg, 1,416 bls. wood pulp.

WOOD PULP BOARDS

C. K. MacAlpine & Co., Gripsholm, Gothenburg, 59 bls.

BOSTON IMPORTS

WEEK ENDING AUGUST 11, 1928

Perkins Goodwin & Co., Svanhild, Oslo, 125 bls. sulphite.
Chase National Bank, Svanhild, Oslo, 2,160 bls. sulphite.
Chemical National Bank, Svanhild, Tofte, 450 bls. sulphite.
E. J. Keller Co., Inc., Winona County, ——, 68 bls. bagging.
Bulkley, Dunton & Co., Tampa, ——, 1,375 bls. wood pulp.
Bulkley, Dunton & Co., Consul Corfitzen, ——, 3,000 bls. wood pulp.
Bulkley, Dunton & Co., West Harcuvar, ——, 2,125 bls. wood pulp.
Bulkley, Dunton & Co., Yokohama, ——, 3,375 bls. wood pulp.
Castle & Overton, Inc., ——, Germany, 374 bls. wood pulp.
Castle & Overton, Inc., V. Emmanuele III, Germany, 3,279 bls. wood pulp.

MONTREAL REPORTS

WEEK ENDING AUGUST 11, 1928

Bulkley, Dunton & Co., Cairutorr, ——, 1,000 bls. wood pulp.
Bulkley, Dunton & Co., Foldenfjord, ——, 13,065 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING AUGUST 11, 1928

Castle & Overton, Inc., Iserholm, Germany, 708 bls. wood pulp.

NEWPORT NEWS IMPORTS.

WEEK ENDING AUGUST 11, 1928

Castle & Overton, Inc., Burgerdyk, Rotterdam, 605 bls. wood pulp.

PHILADELPHIA IMPORTS.

WEEK ENDING AUGUST 11, 1928

J. B. Moors & Co., London Corp., London, 43 bls. rags.
Union Bank & Trust Co., London Corp., London, 226 bls. rope.
Brown Bros. & Co., London Corp., London, 157 bls. rope.
Kaufmanns, Schodack, Havre, 1 cs. writing paper.
Stephano Bros., Schodack, Havre, 26 cs. cigarette paper.
J. W. Hampton & Co., Schodack, Havre, 1 cs. writing paper.
International By-Products Co., Schodack, Havre, 155 bls. rags.
Castle & Overton, Inc., Schodack, Havre, 485 bls. rags.
American Sanitary Rag Co., Schodack, Havre, 43 bls. rags.
V. Galaup, Schodack, Havre, 101 bls. rags.
Robert Blank, Schodack, Havre, 37 bls. rags.
G. W. Millar & Co., Schodack, Havre, 5 bls. rags.
J. M. Hagy Waste Works, Schodack, Havre, 3 bls. rags.
Salomon Bros. & Co., Schodack, Havre, 212 bls. rags.
American Rag Trading Co., Schodack, Havre, 211 bls. rags.
A. Hurst & Co., Schodack, Havre, 40 bls. rags.
G. Mathes, Schodack, Havre, 26 bls. rags.
J. M. Jaffe, Schodack, Havre, 95 bls. rags.
E. J. Keller Co., Inc., Schodack, ——, 141 bls. rags.
Equitable Trust Co., Tomalva, Antwerp, 299 bls. rags.
Castle & Overton, Inc., Tomalva, Antwerp, 314 bls. rags.
G. W. Millar & Co., Tomalva, Antwerp, 122 bls. rags.
E. Butterworth & Co., Inc., Tomalva, Antwerp, 166 bls. rags.
Phila. National Bank, Burgerdyk, Rotterdam, 17 bls. rags.
P. Berlowitz, Burgerdyk, Rotterdam, 80 bls. rags.
Melrose Paperstock Co., Burgerdyk, Rotterdam, 169 bls. rags.
National City Bank, Burgerdyk, Rotterdam, 116 bls. rags.
S. Birkenstein Sons, Burgerdyk, Rotterdam, 71 bls. old carpets.
Castle & Overton, Inc., Burgerdyk, Rotterdam, 1,262 bls. wood pulp.
Equitable Trust Co., Burgerdyk, Rotterdam, 44 bls. string waste.
J. A. Steer & Co., Burgerdyk, Rotterdam, 92 rolls straw board.
Katzenstein & Keene, Inc., Burgerdyk, Rotterdam, 346 bls. rags.
Chemical National Bank, Svanhild, Oslo, 2,700 bls. sulphite.
E. J. Keller Co., Inc., Svanhild, ——, 800 bls. sulphite.
Bank of The United States, Innoko, Rotterdam, 44 bls. rags.
Castle & Overton, Inc., Innoko, Rotterdam, 186 bls. rags.
D. I. Murphy, Innoko, Rotterdam, 88 bls. rags.
J. A. Steer & Co., Innoko, Rotterdam, 128 bls. rags.
S. Birkenstein Sons, Innoko, Rotterdam, 7 bls. rags.
Chase National Bank, Innoko, Rotterdam, 497 bls. rags.
Chase National Bank, Arkansas, Oslo, 200 bls. wood pulp.
Chemical National Bank, Arkansas, Oslo, 2,400 bls. wood pulp.
Bank of The United States, Arkansas, Copenhagen, 389 bls. rags.
E. J. Keller Co., Inc., Corson, ——, 129 bls. rags.
Equitable Trust Co., Corson, Naples, 56 bls. rags.
Bulkley, Dunton & Co., Harburg, ——, 560 bls. wood pulp.
Castle & Overton, Inc., Melmore Head, Belgium, 1,445 bls. wood pulp.
Castle & Overton, Inc., Iserholm, Germany, 1,930 bls. wood pulp.
Castle & Overton, Inc., Iserholm, Germany, 551 bls. rags.
Castle & Overton, Inc., Clara, Italy, 73 bls. rags.
Castle & Overton, Inc., Etna, Sweden, 300 bls. wood pulp.
E. J. Keller Co., Inc., Nobles, ——, 195 bls. rags.

BALTIMORE IMPORTS.

WEEK ENDING AUGUST 11, 1928

Castle & Overton, Inc., Burgerdyk, Rotterdam, 502 bls. wood pulp.
National City Bank, Burgerdyk, Rotterdam, 234 bls. rags.
National City Bank, Burgerdyk, Rotterdam, 293 bls. bagging.
Furniss Withy & Co., Burgerdyk, Rotterdam, 45 bls. old rope.
E. J. Keller Co., Inc., Burgerdyk, ——, 300 bls. wood pulp.
Certainteed Products Corp., Ala, Antwerp, 263 bls. rags.
Congoleum Nairn Co., Ala, Antwerp, 1,195 bls. rags.
Congoleum Nairn Co., Ala, Antwerp, 299 bls. bagging.
Darmstadt, Scott & Courtney, Ala, Antwerp, 82 bls. tares.
Chemical National Bank, Svanhild, Oslo, 1,250 bls. sulphite.
Chemical National Bank, Arkansas, Oslo, 900 bls. sulphite.
Chase National Bank, Arkansas, Oslo, 800 bls. sulphite.
Guaranty Trust Co., Corson, Genoa, 396 bls. rags.
C. B. Richard & Co., Corson, Leghorn, 105 bls. rags.
Banco Com'l Italiane Trust Co., Corson, Leghorn, 407 bls. rags.
Congoleum Nairn Co., Corson, Leghorn, 177 bls. rags.
Guaranty Trust Co., Corson, Leghorn, 248 bls. rags.
Congoleum Nairn Co., Corson, Naples, 80 bls. rags.
Guaranty Trust Co., Corson, Naples, 62 bls. rags.
C. B. Richard & Co., Corson, Naples, 93 bls. rags.
Banco Com'l Italiane Trust Co., Corson, Naples, 121 bls. rags.
Congoleum Nairn Co., McKeesport, Dunkirk, 242 bls. rags.
Congoleum Nairn Co., McKeesport, Havre, 493 bls. rags.
Bulkley, Dunton & Co., Consul Corfitzen, ——, 2,055 bls. wood pulp.
Castle & Overton, Inc., Iserholm, Germany, 5,174 bls. wood pulp.

To Add Liquid Chlorine to Its Line

The Diamond Alkali Company, Pittsburgh, Pa., through its vice president and sales manager, F. G. Lancaster, has announced that beginning this fall liquid chlorine in all the standard types of containers will be added to its present line of industrial chemicals.

This company at present manufactures soda ash, caustic soda, bicarbonate of soda and various types of modified soda and special alkalies. The Diamond Alkali Company's plant is located at Painesville, Ohio, and the general offices are at Pittsburgh, Pa. It is expected that the addition of liquid chlorine to its present products will be met with favor among consumers throughout the country by enhancing the service the Diamond Alkali Company is already rendering its clientele.

Now Vice President in Charge of Sales

At the annual meeting of the Saranac Pulp and Paper Company, Inc., on July 31, held at their head office in Plattsburg, New York, E. C. Martin was appointed vice president in charge of sales and a member of the Board of Directors.

The

ST. REGIS PAPER COMPANY

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A SIMPLE change in the manufacturing process often results in a pronounced decrease in cost of production.

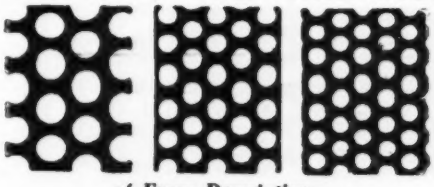
Paper Mills use Starch for sizing to produce better and stronger sheets with lower cost of manufacture.

Our SPECIAL PAPER brand for beater-sizing increases strength of sheet and gives improved finish.

Our FOX HEAD brand for top-sizing is more economical than all glue-size.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York City

PERFORATED METALS



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GENERAL CHEMICAL COMPANY 40 RECTOR STREET, NEW YORK

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, August 15, 1928.

While business in the local paper market is fairly satisfactory for the time of the year, most of the orders transacted of late have been for immediate requirements. Quotations in practically all sections of the industry continue to hold up well, with little talk of concessions. A material broadening of the situation is confidently anticipated after Labor Day, in most quarters.

Demand for news print is mostly seasonal and well up to the average of preceding years. Production has been curtailed somewhat, but stocks on hand are large enough to cope with current needs. The spot market rules fairly active. Contract prices of news print are holding to schedule, but generous concessions are being made on orders booked for 1929.

Steadiness prevails in the paper board market. Production is approaching capacity and inquiries are expanding with the approach of autumn. Prices are holding to former levels. The fine paper market is in a sound position and most of the grades are in satisfactory request. The coarse paper market is exhibiting a strong undertone. Summer specialties are in good demand and wrapping paper is moving in excellent volume.

Mechanical Pulp

Production of ground wood is slightly ahead of consumption and offerings of both imported and domestic grades are fairly generous. Although demand for the various varieties of mechanical pulp is very quiet at present, quotations are generally holding to the levels which have prevailed for some time, and reports of shading are infrequent.

Chemical Pulp

Trading in the chemical pulp market was moderately active during the past week. Both foreign and domestic mills are reported to be well sold ahead and offerings are decidedly limited. Bleached sulphite continues in an exceptionally strong position. Prices remain steady and unaltered, in most instances, and there is little talk of concessions around.

Old Rope and Bagging

Both domestic and imported old rope continue active. Mixed strings are moving in normal volume for the season. Manila rope continues steady at from $3.25 to $4.00. No radical changes were recorded in the bagging market. Scrap bagging is moving into consumption in normal volume and gunny scrap is in fair request.

Rags

Mill interest in some grades of domestic rags shows signs of improvement. The demand for cotton rags is better than of late and roofing rags are moving at a good pace. Prices remain unaltered. The foreign rag market is practically unchanged. Roofinfi rag stock is fairly active and foreign dark cottons are in better request. Prices are unchanged.

Waste Paper

The paper stock market is becoming more buoyant no wthat the end of the summer months is in sight. No. 1 mixed paper and old kraft machine compressed bales are much stronger. Several other grades are also showing signs of increased liveliness. Prices are somewhat firmer and former levels are being maintained, in most instances.

Twine

During the past week trading in the twine market was mostly along routine lines. While business at present is seasonally quiet, there should be a general revival of activities after the vacation season closes. Quotations remain steady and are generally holding to the levels which have been maintained during the past few months.

Kraft Paper Industry in Australia

According to a report from the Canadian Trade Commissioner, at Melbourne, Australia, the consumption of wrapping (kraft) paper in Australia is about 18,000 tons per annum, of which about 10,000 tons is made in the mills already operating and the balance imported. It is claimed that the new plant installed in Australian paper mills has sufficient capacity to fill Commonwealth requirements of kraft, but it is another question if the quality produced can come up to the high standard of Canadian and some Scandinavian mills which is favored by paper bag makers and other users. With the exception of about 1,000 tons from waste paper and rope, all the pulp used in Australian mills is imported from overseas, by far the greater quantity being of Swedish origin owing to its lower landed costs, though efforts are now being made to secure larger orders for both British Columbia and New Brunswick pulp. The prospects of successfully manufacturing kraft pulp in Australia have been exhaustively investigated, but on the basis of a mill of a capacity of 20 tons per day, the cost per ton, including a 10 per cent profit, would amount to £15 16s. 9d. ($77.08) per ton selling price as against the present approximate c.i.f. value of £12 8s. ($60.35), imported pulp, a margin of £3 8s. 9d. ($16.73) in favor of the latter.

Edward Kendall Dead

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, August 14, 1928.—Edward Kendall, 72 years old, former superintendent of the Friend Paper Company's mills at West Carrollton, died at the Miami Valley hospital in this city, following a long illness. He resided in West Carrollton virtually all his life which was devoted to the paper industry. When the late J. Howard Friend was at the head of the Friend mills, now the Miami-Oxford mills, Mr. Kendall was in charge of the mechanical equipment. His last connection was with the American Envelope Company in West Carrollton. Surviving him are his widow and one son, Frank Kendall.

Funeral services were conducted from the Methodist Episcopal church in West Carrollton and burial was in Evergreen cemetery in the paper mill village.

Sulfit Zellstoff Organized in Germany

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 15, 1928.—The close relationship existing between the German producers of sulphite pulp has been strengthened by the organization of the Sulfit Zellstoff G.m.b.H.

Latest reports state that the syndicate has completed negotiations with the various German firms concerned in the fusion and is now operating as a sales combine controlling the market price of sulphite pulp. Over 20 firms are included in the combine, among them the most important in the German industry.

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For Brown Paper Mill Co. ..... 3430 H.P.
Central Paper Co., Muskegon, Mich., four orders, total ..... 3100 H.P.
Philadelphia Paper Mfg. Co., Phila., three orders, total ..... 2400 H.P.
Jessup & Moore Paper Co., Phila., four orders, total ..... 4750 H.P.
Ontario Paper Co., Ltd.
For Daily Newspaper Co., North Tonawanda, N. Y. ..... 2034 H.P.
Filer Fibre Company, Filer City, Mich. ..... 1500 H.P.
John Lang Paper Co., Philadelphia, Pa. ..... 416 H.P.
Bayless Manufacturing Corp., Austin, Pa. ..... 1300 H.P.
Northern Board & Paper Co., San Francisco, Cal., two orders, total ..... 400 H.P.
Crown Willamette Paper Co., San Francisco, Cal., two orders, total ..... 750 H.P.
Delaware Hard Fibre Co., Wilmington, Del., two orders, total ..... 920 H.P.
Kieckhefer Container Co., Delair, N. J. ..... 1800 H.P.

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Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, August 15, 1928.

BLANC FIXE.—Conditions in the blanc fixe market are seasonal. Contract withdrawals are moving at a normal pace. Prices remain unchanged. The pulp is still quoted at $40 per ton, in bulk, while the powder is selling at from 3½ cents to 3⅝ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market was rather quiet during the past week. Most of the business transacted was along routine lines. Prices remain unaltered. Bleaching powder is selling at from $2.00 to $2.35 per 100 pounds, in large drums, at works, according to quantity and grade.

CASEIN.—While demand for casein is improving, offerings are limited and prices are firmer. Domestic casein is now quoted at from 16¼ cents to 17 cents a pound, while imported casein is offered at from 16¾ cents to 17 cents a pound, all in bags, car lot quantities.

CAUSTIC SODA.—Supplies of caustic soda are moving into consumption in excellent volume. Prices generally rule steady and unchanged. Solid caustic soda is selling at from $2.90 to $2.95 per 100 pounds. The flake and the ground are quoted at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Demand for china clay is fairly persistent. Contract shipments are going forward regularly. Prices are unchanged. Imported china clay is quoted at from $15 to $25 a ton, ship side. Domestic paper making clay is selling at from $8 to $9 a ton, at mine, and pulverized at from $10 to $12 a ton.

CHLORINE.—Steadiness prevails in the chlorine market. Contract supplies are being taken in good volume. Prices are steady to firm. Chlorine is quoted at 3½ cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation ranges from 3¾ cents to 4 cents a pound.

ROSIN.—Some improvement was noticed in the rosin market. At the naval stores, the grades of gum rosin used in the paper mills are now quoted at from $9.65 to $9.70 per 280 pounds, ex dock, in barrels. Wood rosin is still selling at from $7.50 to $8.30 per 280 pounds, at southern shipping points.

SALT CAKE.—Trading in the salt cake market was moderately active. Contract withdrawals are proceeding at a steady pace. Prices are holding to schedule, in most instances. Salt cake is quoted at from $15 to $17 a ton, in bulk, at works. Chrome salt cake is offered at from $14 to $15 a ton.

SODA ASH.—The soda ash market is in a sound position. Production is being maintained in sufficient volume to take care of the current demand. Prices are unchanged. Contract quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bags, $1.32½, and in barrels, $1.55.

STARCH.—Consumption of starch is being maintained in satisfactory volume. The prevailing demand is well up to average and the market rules steady to firm. Special paper making starch is still selling at $4.22 per 100 pounds, in bags, and at $4.39 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—No radical changes have been recorded in the sulphate of alumina market of late. The contract movement is normal. Prices are unaltered. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.55 per 100 pounds, and iron free at from $1.90 to $2.05.

SULPHUR.—Normal conditions continue to prevail in the sulphur market. Although demand is mostly routine, prices remain steady and unaltered. Sulphur is quoted at from $18 to $19 a ton, at mine, in bulk, on contract orders. The spot quotation continues unchanged at $20 per ton.

TALC.—Business in the talc market is fairly active. Offerings are ample for current needs. Prices are holding to previously quoted levels, and shading is infrequent. Domestic talc is quoted at from $16 to $18 a ton, in bulk, at eastern mines. Imported talc is selling at from $18 to $20 a ton, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	32.00
Superfine	14.00	@	32.00
Tub sized	10.00	@	15.00
Engine sized	8.00	@	11.00
News—			
Rolls, contract	3.25	@	—
Rolls, transient	3.25	@	3.50
Sheets	3.65	@	3.85
Side Runs	3.00	@	3.75
Book, Cased—			
S. & S. C.	6.35	@	7.75
M. F.	6.25	@	7.75
Coated and Enamel	8.00	@	15.00
Lithograph	8.00	@	15.00
Tissues—Per Ream—			
White No. 1	.75	@	1.00
Anti-Tarnish	1.10	@	1.90
Colored	1.00	@	2.00
White No. 2	.75	@	.85
Kraft	.90	@	1.00
Manila	.75	@	.85
Kraft—			
No. 1 Domestic	6.25	@	6.50
No. 2 Domestic	4.25	@	4.50
Southern	4.00	@	4.25
Imported	6.50	@	7.00
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.25
No. 2 Wood	4.00	@	4.50
Butchers	3.75	@	4.25
Fibre Papers—			
No. 1 Fibre	5.00	@	5.50
No. 2 Fibre	4.75	@	5.25
Common Bogus	2.75	@	3.00
Screenings	3.00	@	3.25
Card Middles	4.00	@	5.00
Glassine—			
Bleached, basis 25 lbs.	13.00	@	16.00
Bleached, basis 20 lbs.	15.00	@	16.00

(Delivered New York)

Boards—per ton—			
News	47.50	@	50.00
Straw	52.50	@	55.00
Chip	45.00	@	47.50
Binders' Boards	65.00	@	67.50
Sgl. Mla. Ll. Chip	51.00	@	53.50
Wood Pulp	80.00	@	85.00
Container	67.50	@	72.50
85 test Jute Liner	57.50	@	60.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—			
Moist	30.00	@	31.25
Dry	32.00	@	34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@	29.00
Screenings	15.00	@	20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	3.65	@	4.25
Easy Bleaching	2.70	@	2.90
No. 1 strong unbleached	2.60	@	2.70
Mitscherlich unbleached	2.65	@	3.25
No. 2 strong unbleached	2.50	@	2.60
No. 1 Kraft	2.60	@	2.75
No. 2 Kraft	2.40	@	2.50
Sulphate—			
Bleached	3.75	@	3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—			
Bleached	3.40	@	4.75
Easy Bleaching Sulphite	2.60	@	2.75
News Sulphite	2.40	@	2.65
Mitscherlich	3.00	@	3.70
Kraft (Domestic)	2.70	@	3.30
Soda Bleached	3.15	@	3.50
Sulphate Screenings—			
Coarse	.75	@	.85
Refined	1.50	@	1.65

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	11.75	@	12.25
New White, No. 2	8.00	@	8.50
Silesias No. 1	7.25	@	7.75
New Unbleached	10.50	@	11.00
Washables	4.25	@	4.75
Fancy	5.50	@	6.00
Blue Overall	6.75	@	7.25
New Blue Prints	5.25	@	5.50
New Soft Blacks	5.25	@	5.75
Mixed Khaki Cuttings	4.75	@	5.25
Pink Corset Cuttings	8.00	@	8.50
O. D. Khaki Cuttings	5.25	@	5.75
Men's Corduroy	3.75	@	4.25
New Mixed Blacks	3.50	@	3.75

Old Rags

White, No. 1—			
Repacked	5.50	@	6.00
Miscellaneous	4.50	@	5.00
White, No. 2—			
Repacked	3.00	@	3.50
Miscellaneous	2.50	@	2.75
St. Soiled, White	2.00	@	2.15
Thirds and Blues—			
Repacked	2.25	@	2.50
Miscellaneous	1.75	@	2.00
Black Stockings	3.25	@	3.75
Roofing Rags—			
Cloth Strippings	1.70	@	1.80
No. 1	1.70	@	1.80
No. 2	1.55	@	1.65
No. 3	1.30	@	1.40
No. 4	1.25	@	1.35
No. 5A	.95	@	1.05

Foreign Rags

New Dark Cuttings	2.50	@	3.00
New Mixed Cuttings	2.75	@	3.25
New Light Silesias	7.00	@	7.50
Light Flannelettes	7.50	@	8.00
Unbleached Cottons	10.00	@	11.00
New White Cuttings	10.50	@	11.50
New Light Oxfords	7.00	@	7.50
New Light Prints	5.50	@	6.50
No. 1 White Linens	7.25	@	8.00
No. 2 White Linens	5.50	@	6.25
No. 3 White Linens	4.50	@	5.00
No. 4 White Linens	3.00	@	3.50
Old Extra Light Prints	2.75	@	3.25
Ord. Light Prints	2.25	@	2.50
Med. Light Prints	1.90	@	2.10
Dutch Blue Cottons	2.25	@	2.50
German Blue Linens	2.50	@	2.75
German Blue Cottons	2.00	@	2.25
Checks and Blues	1.75	@	1.90
Lindsay Garments	1.85	@	1.95
Dark Cottons	1.65	@	1.75
Old Shopperies	1.55	@	1.65
New Shopperies	1.50	@	1.60
French Blues	2.10	@	2.25

Old Rope and Bagging

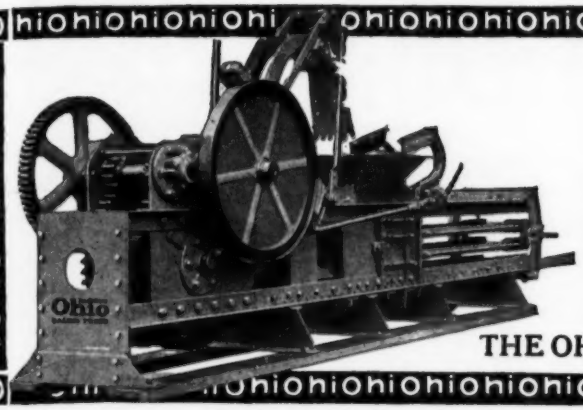
(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.60	@	1.70
Domestic	1.70	@	1.75
Wool Tares, light	1.60	@	1.65
Wool Tares, heavy	1.60	@	1.65
Bright Bagging	1.60	@	1.65
Small Mixed Rope	1.25	@	1.40
Manila Rope—			
Foreign	3.25	@	3.50
Domestic	3.25	@	4.00
New Burlap Cut	2.75	@	3.00
Hessian Jute Threads—			
Foreign	3.50	@	4.00
Domestic	3 25	@	3.50

Old Waste Papers

(F. o. b. New York)

Shavings—			
Hard, white, No. 1	3.25	@	3.50
Hard, white, No. 2	2.50	@	2.65
Soft, White, No. 1	2.25	@	2.50
White envelope cuttings	3.25	@	3.50
Flat Stock—			
Stitchless	1.65	@	1.75
Overissue Mag	1.65	@	1.75
Solid Flat Book	1.50	@	1.60
Crumpled No. 1	1.20	@	1.30
Solid Book Ledger	2.00	@	2.10
Ledger Stock	1.60	@	1.75
Manilas—			
New B. B. Chips	.65	@	.75
New Env. Cut	2.40	@	2.60
New Cuttings	1.60	@	1.85
Extra No. 1 old	1.25	@	1.35
Print	.75	@	.85
Container	.62½	@	.70
Bogus Wrapper	.75	@	.85
Old Kraft Machine Compressed bales	1.80	@	1.90
News—			
No. 1 White News	1.50	@	1.60
Strictly Overissue	.80	@	.90
Strictly folded	.57½	@	.62½
No. 1 Mixed Paper	.47½	@	.50
Common Paper	.30	@	.35



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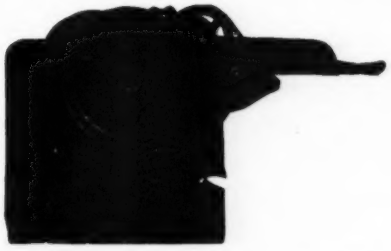

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Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¾	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¾
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton— (Delivered Central Territory)			
Plain Chip	37.50	@	41.00
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined— (Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	2.90	@	3.00
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.25	@	1.35
Blanks	1.70	@	1.80
Krafts	1.90	@	2.00
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.90	@	1.00
Folded News (overissue)	.65	@	.75
Old Newspapers—			
No. 1	.65	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks— (F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
New	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manila Sul., No. 1	.04½	@	.06
Manila No. 2	.04	@	.04½
No. 2 Kraft	.05¾	@	.05½
No. 1 Kraft	.06	@	.06¼
Common Bogus	.02¾	@	—
Straw Board	50.00	@	75.00
News Board	47.50	@	—
Chip Board	42.50	@	45.00
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	80.00	@	90.00
No. 2, per ton	75.00	@	80.00
Carload lots	65.00	@	75.00
Tarred Felts—			
Regular	58.00	@	63.00
Slaters (per roll)	84	@	.94
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.44	@	1.54
Best Tarred, 3-ply	1.93	@	2.08
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.03½	@	.04
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	—	@	.04
New Black Soft	.05¼	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03½
New Canvas	.08	@	.09½
New Black Mixed	.05	@	.05½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps	1.40	@	1.50
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	—	@	2.50

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White	2.40	@	2.50
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.50	@	1.60
Writing Paper	1.50	@	1.60
No. 1 Books, heavy	1.50	@	1.60
No. 2 Books, light	1.25	@	1.40
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.95	@	1.00
Container Manila	.80	@	.90
Old Kraft	2.25	@	2.50
Common Paper	.50	@	.55
No. 1 Mixed Paper	.55	@	.60
Straw Board, Chip	.60	@	.65
Binders Board, Chip	.60	@	.65
Overissue News	.75	@	.80
Old Newspaper	.50	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	4.00
White, No. 2—			
Repacked	.02¼	@	.02¾
Miscellaneous	.01¾	@	.02
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.80	@	2.00
Black Stockings	3.75	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.40	@	1.50
No. 3	1.25	@	—
No. 4	1.25	@	—
No. 5A	.85	@	.90
B	.80	@	.90
C	.70	@	.80

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.04	@	.04¾
Common Bogus	.02	@	.02¾
Delivered New England points			
Straw Boards, rolls .009			52.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp Lined Board	52.50	@	57.50
Single White, Patent Coated Newsboard Bender	70.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.45	@	2.55
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	1.55	@	1.60
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.20	@	1.25
White Blank News	1.40	@	1.50
Old Kraft	1.90	@	2.00
Print Manila	.70	@	.80
No. 1 Mixed Paper	.47½	@	.52½
Overissue News	.70	@	.80
Old Newspapers	47.50	@	52.50
Box Board, Chip	.65	@	—

Bagging

(Price f. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.60
Manila Rope—			
Foreign	3.25	@	3.62½
Domestic	3.50	@	3.75
Mixed Strings	.85	@	1.00
Scrap Burlaps	1.50	@	1.60
Scrap Sisal	1.25	@	—
Scrap Sisal for shredding	1.50	@	—
Wool Tares, heavy	—	@	1.50
New Burlap Cutting	—	@	2.00

Domestic Rags (New)

(Price f. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09	@	.10
Silesias, No. 1	.07	@	—
New Unbleached	.09½	@	.10
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06	@	.06½
New Black, soft	.04	@	.04¾
Khaki Cuttings	.04	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08	@	.08¾

Domestic Rags (Old)

(Price f. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.00	@	2.15
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.45	@	1.55
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.65	@	1.70
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	5.00	@	5.50
New Checks & Blues	4.50	@	4.65
Old Fustians	1.90	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

Pulp

(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	62.00	@	—
Sulphite news grade	62.00	@	—
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

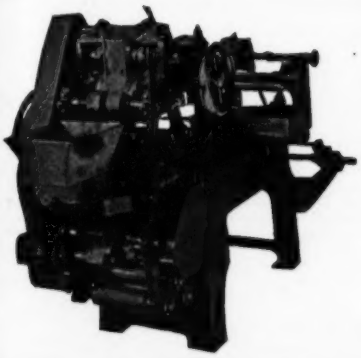
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk, News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.80	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.11½	@	—
Fancy Shirt Cuttings	.05½	@	—



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Paper hitherto made without rag stock, can be brought to the high quality goal by the use of Alpha Fibre.

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Ham Feltz says:

"There's something about these Hamilton Felts what shows their difference. I reckon that all felts is made of about the same stuff, but all of them don't begin to take out the water as does these Hamilton Felts. The guys what make 'em must use something else. Maybe it's that 70 years 'knowing how'. I reckon it is."

Hamilton Felts

Paper Mill Stocks and Bonds

Quoted by Taylor & White, 45 Wall street, New York City, to whom all inquiry for quotations on these or any other Securities is referred.

Abitibi Power & Paper 5s, 1943	90	91
Abitibi Power & Paper 6s, serially to 1934	100	102
American Writing Paper 6s, 1947	81	87
Bastrop Pulp & Paper 6½s, 1940	103	105½
Bedford Pulp & Paper 6½s, 1942	97	100
Belgo-Canadian Paper 6s, 1943	100	103
British-Columbia Pulp & Paper 6s, 1950	89	92
Brown Paper Mills Serial 6s, 1941	97	100
Brown Company 5½s, 1946	98	101
Bryant Paper 6s, 1942	98	101½
Canadian Paper Board 7s, 1937	97	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	95	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago Debenture 6s, 1936	95	98
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	78	...
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	95	...
Champion Paper Corp 6s, 1945	95	98
Container Corp of America Debenture 6s, 1936, ex-warrants	101	104
Continental Paper Products 6½s, 1943	90	99
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	101	102
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	80	...
Donnaconna Paper 5½s, 1948	95	98
Eastern Manufacturing Co. 7s, 1938	97	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Orange Paper 7s, 1942	101	...
Fort William Paper 6s, 1946	100	104
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	100	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	94	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
International Paper 6s, 1955	102	103
International Paper 5s, 1947	98	100
Itasca Paper & Prairie River Power Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Power Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	83	90
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Paper 6s, 1941	105	108
Marathon Paper Mills Serial 5½s, 1942	99	101
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	97	101
Menosha Printing & Carton 6½s, 1939	99½	...
Minnesota Ontario Paper Serial 6s, 1945	97½	100
Murray Bay Paper Serial 6½s, 1947	102	105
Munissing Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1928-42	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswegatchie Paper Serial 6s, 1932	95	100
Oswego Falls Corp. 6s, 1941	99	102
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 5½s, 1947	98	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Queen City Paper 7s, 1933	98	...
River Raisin Paper 6s, 1936	98	100
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Maurice Valley Corp. 6s, 1945	101	104
St. Maurice Valley Corp 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	100
Smith (Howard) Paper Mills 7s, 1941	104	106
Spanish River Pulp & Japer 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Tait Paper & Color Industries 6s, 1934	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	...
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
Union Bag & Paper Power 6s, 1932	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	101	103½
Waterway Paper Products 6s, 1931	100	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	93
Whitmer-Parson Pulp & Lumber 8s, 1938	20	25
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd.	9¼	10¼
American Box Board, Com.	9¼	10¼
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P Pfd.	65	75
Brompton Pulp & Paper, 8% Pfd.	100	...
Champion Fibre, 7% Pfd.	108	110
Diem & Wing, 7% Com. Pfd.	92	97
Eastern Mfg. Co. 1st Pfd.	55	...
Great Northern Paper, Com.	75	78
Hammermill Paper, new 6% Pfd.	100	...
Hinde & Dauch, Com.	125	None Off.
Hinde & Dauch, 6% Pfd.	102	None Off.
Holyoke Card & Paper	160	None Off.
Marathon Paper Mills, Com.	150	...
Midwest Box Co., 8% Pfd.	98	102
Midwest Box Co., 6% Pfd.	95	99
Louis De Jonge Co., 7% Pfd.	94	97
Oxford Papers, Com.	195	...
Oxford Paper Co., Pfd.	108	111
Penobscot Chemical Fibre, Com.	80	...
Richardson Co., Com.	170	...
Rubberoid	95	101
Sabin Robbins Paper Co., 7% Pfd.	105	110
St. Croix Paper	155	...
St. Regis Paper Co., 7% Cum. Pfd.	105	108
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper Company	55	57
West Virginia Pulp and Paper, Pfd.	100	103
Whittaker Paper, 7% Cum. Pfd.	105	None Off.

Paper From Grape Vines

Shades of Bacchus! That erstwhile popular god must certainly storm the gilded streets of Olympus as he sees the uses to which the native sons of California turn the grape. Grape juice (containing benzoate of soda) must have caused a pang of sorrow; the pretty little red boxes that have induced us to "eat more iron"—as raisins—must have given him wistful pause; but the crowning indignity is now contained in the news that a California company has been formed to manufacture paper made from grape-vine cuttings.

Chemically, and from the paper maker's point of view, this is an interesting project, says the *Scientific American*. The new plant, known as the Sacramento Pulp and Paper Company, is to be located in Sacramento and is capitalized at a million dollars. Plans for the initial unit of the plant call for the manufacture of 25 tons of wrapping paper per day, which would give employment to about 80 persons, with a daily payroll of about 500 dollars.

H. D. Wagnon, one of the directors, is the discoverer of the process for making pulp and paper out of grape vines and has protected it by applying for a patent covering the gathering, treating and manufacturing process.

It was decided to establish the factory in Sacramento because this city is the center of the grape industry of the state. Within a radius of 50 miles are planted about 100,000 acres of grape vines, thus affording for the proposed pulp and paper mill a large supply of raw material.

The use of grape vines is an innovation in the pulp and paper industry. Through utilization of this medium it is confidently expected by the backers of the project that production cost in raw material will be materially decreased.

Seeds from Canadian Trees for Abroad

A despatch from New Westminster, B. C., says:

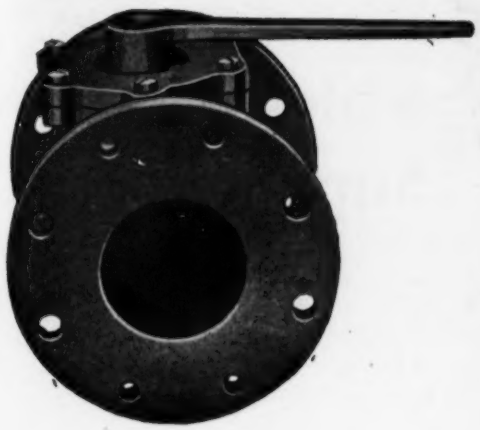
Steamer, rail, motor truck and wagon are bringing in thousands of sacks of cones of Sitka spruce, western red cedar, western hemlock and other trees and in a few weeks the extracted seeds will be shipped away to the markets of the world, chiefly within the British Empire.

This city possesses one of the largest seed plants on the continent, maintained by the Dominion Government.

The work of seed collecting from a small beginning in 1917, has grown to large proportions and today is assisting in building up forests in many parts of the Empire. New Zealand, in particular, is supplied each year with large quantities of Canadian tree seed and smaller quantities are shipped to Australia and elsewhere.

The crop of seed varies greatly for each species from year to year. During last season, taking all species as a whole, the crop was only medium. Of the three species most in demand—Sitka spruce, Douglas fir and western yellow pine—only the Sitka spruce produced a satisfactory supply. The coast variety of the Douglas fir, which for several years has not borne abundantly, during the last season produced practically no crop. Following a bumper crop in 1926 the western yellow pine also yielded but little seed.

"Repeat Orders Are the Best Indorsement"



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Simplicity and strength are both present. This valve is built on an entirely different principle from other gate valves, in that a straight bronze plug is used instead of a gate, with a cast-iron body designed to reduce plugging to a minimum. Has no bonnet to leak. Valve is furnished with a long handle to open and close, with sufficient leverage to shear off ordinary obstruction without using a piece of pipe. Valves may be placed in any position.

The Barker Quick Opening Stock valve **does not require cleaning** after each different color or grade of stock has passed through. The many repeat orders being received by us are the best proof of satisfaction.

Install this valve and note the difference.

GREEN BAY BARKER
Machine & Tool Works
Green Bay Wisconsin
"Machinery Manufacturers"

PAPER TRADE JOURNAL
ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SEVENTH YEAR

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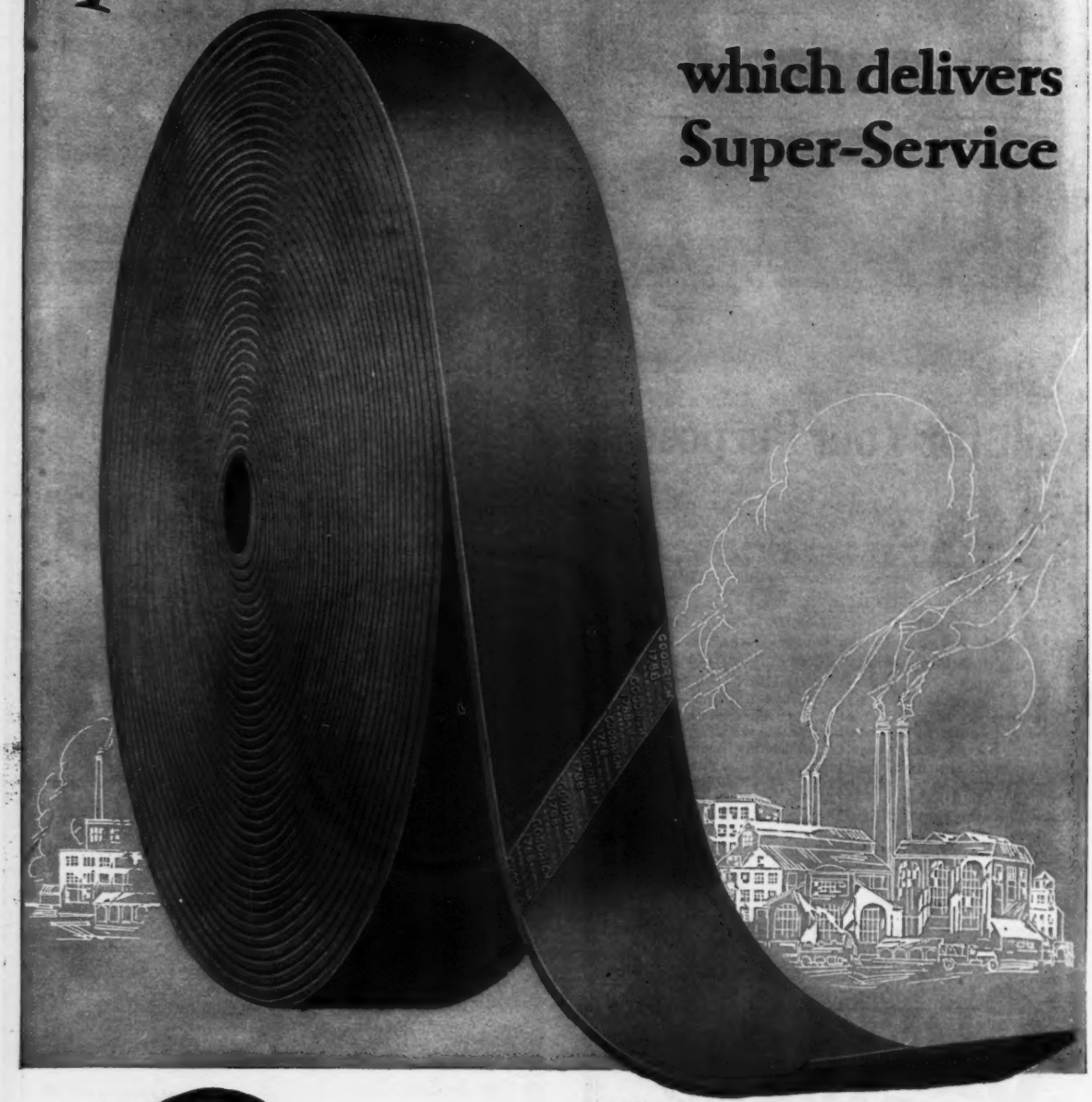
The Transmission Belt

which delivers Super-Service



Goodrich

"1788 Highflex" Belt

THE B. F. GOODRICH RUBBER COMPANY

Established 1870 Akron, Ohio